

Updated crosswalk of the revised EUNIS Habitat Classification with the European vegetation classification and indicator species for the EUNIS grassland, shrubland and forest types



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and data providers

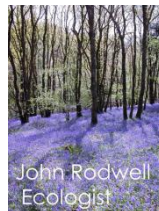
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1 Introduction

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 ecosystems 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 realms. 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 complete European continent and seas. A preliminary, 2014 revised classification has been used in the DG ENV project European Red List of Habitats (Janssen et al. 2016), which has resulted in further improvements to the classification. For the revisions, we have proposed in previous EEA projects, we would refer to the relevant passages in these reports (Schaminée et al. 2012, 2013, 2014, 2016a, 2016b). The revisions include two types of recommendations, one concerning the classification itself, with recommendations for new units, splitting and merging existing units, and one dealing with their naming. In many cases, the EUNIS habitat types were considered too broad and therefore should be divided. The proposed revisions are mainly based on floristic composition, whereas EUNIS sometimes follows a division based on vegetation structure (for example open and closed grassland). In particular, the order level in syntaxonomy proved to be appropriate for making distinctions.

One of the main aims of the EEA Framework contract is to support EEA and other European institutions with data and tools for the assessment of ecosystem status and trends, including their provided services and functions. Task 1 of the contract focuses on enhancing ecosystem maps, using *in situ* vegetation data, as they 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 two specific subtasks: (1) an update of crosswalks of the revised EUNIS classification with the updated and formally published *EuroVegCheckList*, and (2) a re-analysis of the formal query routines and indicator species lists.

UPDATE OF CROSSWALK: An updated version of *EuroVegChecklist* was published in 2016 (Mucina et al. 2016). Through a number of European Vegetation Survey (EVS) projects the EUNIS classification has been cross-walked with older versions of *EuroVegChecklist*, during which process the EUNIS Groups E (grasslands), F (heathlands, scrubs and tundra) and G (forests) have been revised at level 3 (Schaminée et al. 2012, 2013, 2014, 2016a, 2016b). In close collaboration with this work, the analysis of the European Red List of Habitats (Janssen et al. 2016) was carried out, resulting – as already mentioned above – in a number of improvements to the EUNIS classification for those habitat groups and countries that were involved, in addition to those changes that were proposed during the work on the EEA projects (Schaminée et al. 2013, 2014, 2016a, 2016b). Further to this, the final EUNIS review has undergone public consultations with experts and countries of the Eionet, of which the most recent results are becoming available now (October 2018). As a consequence of the most recent consultation, some differences with regard to defining, classifying, naming and coding have been brought forward and compared to the ones proposed in the EEA projects and subsequent meetings. The present project focuses on updating the crosswalk with *EuroVegChecklist* 2016 for the habitat groups that were revised by the end of 2017 (grasslands, shrublands and forests). Based on the results of the recent consultation and on discussions in the frame of this work, the already revised grasslands, shrublands and forests were revisited. The development of the crosswalk has been done in close communication with ETC/BD. This subtask is a prerequisite to the following subtask on the identification of indicator species and to the production of distribution maps by EEA-ETC/BD.

QUERY ROUTINES AND INDICATOR SPECIES: Indicator species lists and formal query routines (that define the habitats based on a combination of species occurrence and species cover) were developed for the revised habitat groups through the EEA projects (Schaminée et al. 2013, 2014, 2016a, 2016b). The updated EVA database (Chytrý et al. 2016) includes an increased number of plot data, including from Scandinavia and Macaronesia where data were previously scarce. According to data availability, the updated EVA database and other available sources have been used to re-analyse the lists of indicator species and the query routines and fill the gaps where no vegetation plots were available for the previous assessments for the revised habitat groups of grasslands, shrublands and forests.

For each habitat type of the revised EUNIS classification of Groups E (grasslands), F (heathlands, scrubs and tundra) and G (forests), distribution maps have been compiled on the basis of georeferenced vegetation relevés. The maps have been produced within one of the tasks executed by WENR as

consortium partner of ETC/BD. The maps will become available in a separate document.

2 Update of crosswalks of the revised EUNIS habitats of grasslands, shrublands and forests 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. Not all of the habitat types could be crosswalked, as these types cannot syntaxonomically be defined. It concerns the habitat types E71, E72, E73, G28, G3F1, G34d, G56, G57 and G58; the same applies to some of the newly added habitat types with the new codes T1J, T1K, T2A and T3L (for code references, see Appendix A; see also Paragraph 3.3).

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), 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 a project meeting in Wageningen (9-20 April 2018) and at this year's meeting of the European vegetation Survey in Wrocław, Poland (23-25 May 2018), and a recent 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 nature 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 a committee has been 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 an extra issue of Applied Vegetation Science, a journal of the International Association for Vegetation Science (IAVS).

2.3 The revised EUNIS habitat classification

In the frame of this work a revised EUNIS list of habitats at level 3 for grassland habitat types (Group E), heathland, scrub and tundra habitat types (Group F), and forest habitat types (Group G) was agreed and is presented in Appendix A. During the process of reviewing, a wide range of topics was extensively discussed, on various occasions, in close collaboration with ETC-BD, of which we will summarize some of the outcomes here. The discussions not only referred to the definition and hierarchic position of the individual habitat types, but also to their naming and coding. During the process, we continually updated a “working list”, which ultimately lead to the final classification as presented in Appendix A. In Appendix B, the descriptions of the revised habitat types have been brought together, based on the EEA reports (Schaminée 2013, 2014, 2016a, 2016b), with some text corrections and a small number of new ones, see also Figure 2.2).

- **Name changes and coding.** A wide variety of name changes has been proposed and accepted, of which the results can be seen in Appendix A. The coding of the EUNIS habitat types is under revision, but as no final decisions have been made yet, we have used the current provisional codes of the “working list”. The “old codes” mentioned in the various appendices

refer to interim codes of the revision projects. The changes in names are relatively modest. Two examples to illustrate this: "E1.1g Perennial rocky grassland of Central Europe and the Carpathians" has been changed into "E1.1g Perennial rocky grassland of Central and South-Eastern Europe", as this habitat type is not restricted to the Carpathians, but also occurs in South-Eastern Europe. "E1.2A Semi-dry perennial calcareous grassland" has become "E1.2A Semi-dry perennial calcareous grassland (meadow steppe)" to clarify already in the name the meaning for Eastern European authors and users of the classification.

- **Coastal habitats.** The coastal habitats will remain as a separate group at level 1 in the final EUNIS classification (Group B). Being not part of the present contract, we excluded them from our working lists, although some of these types were reviewed in the earlier EVS reports (e.g. B1.4B "Mediterranean and Macaronesian coastal dune grassland (grey dune)" and "B1.6A Atlantic and Baltic coastal dune scrub").
- **Semi-desert habitats.** As the Eastern European semi-deserts are part of a separate floristic region, it seems to be consistent for the EUNIS classification to distinguish steppe and semi-desert habitat types at a high level, as has been done for many Macaronesian and Mediterranean habitat types. In total, six new EUNIS habitat types were proposed for the semi-desert and adjacent steppe region of southern Russia and Kazakhstan, excluding potential new coastal habitat types of the Caspian Sea. Within the group of grasslands, this concerns E1.2d Desert steppe, E6.4 Semi-desert salt pan, and E6.5 Continental subsaline alluvial pasture and meadow. Within the group of shrublands, it concerns F6.8b Aralo-Caspian semi-desert scrub, F6.8c Semi-desert sand dune with sparse scrub, and F9.4. Semi-desert riparian scrub. Apart from the classification and names, a short description of the new types has been provided (Janssen & Schaminee 2018) in the frame of the consortium of ETC/BD.

E1.2d Desert steppe

Continental, temperate very dry zonal steppe, occurring in a transition belt between the true steppe region and the semi-desert region of the south-east of European Russia and the northern Caucasus, ranging further into Kazakhstan. Dominated by a combination of xerophytic tall and low grasses (*Stipa*, *Koeleria*) and xerophytic semi-shrubs (*Artemisia*, *Tanacetum*). Vegetation cover is relatively low, with most biomass belowground. Typically found on Chernozem and Kastanozem soils.

E6.4 Semi-desert salt pan

Azonal, mosaic habitat of halophytic chenopod scrub and saline grassland in the semi-desert zones of south-eastern Europe. Vegetation is a combination of open annual and perennial halophytic communities and more closed grassland. Occurring on so-called solonchak soils, in poorly drained, saline or hypersaline depressions and on shores of rivers and lakes.

E6.5 Continental subsaline alluvial meadow (or Continental subsaline alluvial pasture and meadow)

Subsaline, perennial grassland of river valleys and other depressions in the steppe and semi-desert region. Dominated by perennial herbs, typically including *Glycymhiza glabra*. Occurring on terraces and elevations in river valleys where this grassland is flooded for a short period in some years and on non-alluvial soils that are temporarily wet.

F6.8b Aralo-Caspian semi-desert

Zonal scrubby vegetation on loamy and subsaline soils of the semi-desert and deserts of the Caucasus foothills, south-eastern European Russia and Kazakhstan. The open vegetation is dominated by *Artemisia* spp. and other sub-halophytic shrubs (*Salsola* spp., *Petrosimonia* spp.). In the Caspian lowland this habitat reaches its north-western distribution limit, having its main distribution in the desert regions surrounding the Caspian Sea and Aral Lake, and further into Asia.

F6.8c Semi-desert sand dune with sparse scrub

Relatively open perennial vegetation of halophytic shrubs (*Salsola*, *Haloxylon*, *Artemisia*, *Tamarix*) and annuals on wind-blown drifting or stabilised dunes and overgrazed, sandy soils in the semi-desert region of the Caspian lowlands. The sandy soils are weakly developed or not at all.

F9.4. Semi-desert riparian scrub (or Alluvial scrub of the semi-desert zone)

Open scrub of *Tamarix* spp. and other shrubs and small trees occupying small or linear patches in sites with seasonally high groundwater table and saline soils in beds of temporary or permanent rivers, in pans or sometimes in human-affected sites like irrigation systems through the semi-desert and desert region.

Figure 2.2. For the semi-desert, six additional EUNIS habitat types have been proposed, three of them classified in Group E and three of them in Group F (Janssen & Schaminée 2018).

- **Anthropogenic habitats.** It has been proposed to distinguish – at level 1 of the EUNIS habitat classification – anthropogenic types at present in Groups E (grasslands), F (heathlands, scrubs and tundra) and G (forests) by putting them in the group I Regularly or recently cultivated agricultural, horticultural and domestic habitats. The group would be renamed to Vegetated man-made habitats and include the relevant anthropogenic habitats. After the recent consultation it was decided to follow for forests the FRA definition of FAO and so to move some of the forest habitats to the group of man-made habitats (Figure 2.2).

PROPOSED TO BE MAN-MADE BUT NOT MOVED	
G1Ca	Broadleaved deciduous plantations of non site-native trees
G1Cb	Broadleaved deciduous plantations of site-native trees
G28a	Broadleaved evergreen plantations of non site-native trees
G28b	Broadleaved evergreen plantations of site-native trees
G3F1	Coniferous plantations of site-native trees
G3F2	Coniferous plantations of non site-native trees
G57	Coppice
G58	Recently felled areas
MOVED TO MAN-MADE	
G1D	Broadleaved fruit and nut tree orchards
G29	Evergreen orchards and groves
G51	Lines of planted trees
G52	Small deciduous broadleaved planted other wooded land
G53	Small evergreen broadleaved planted other wooded land
G54	Small coniferous planted other wooded land

Figure 2.2. Overview of forest types proposed to be moved to Vegetated man-made habitat types and the finally moved types.

3 Indicator species and distribution maps of the revised EUNIS habitats of grasslands, shrublands and forests

3.1 Background

In our previous work (Schaminée et al. 2013, 2014, 2016a, 2016b), we produced lists of indicator species and distribution maps for EUNIS habitat types of grasslands (habitat group E), shrublands (group F) and forests (group G) based on a large set of European vegetation plots.

Vegetation plots (phytosociological relevés) belonging to individual habitat types (henceforth 'habitats') were identified in the databases of the EVA database (Chytrý et al. 2016) and some other databases obtained for this project (see Appendix F). At earlier stages of our work, the identification was based on a crosswalk between syntaxa (phytosociological alliances) and EUNIS habitats (Schaminée et al. 2012, with later updates). However, many plots in the databases were assigned to the syntaxa, and such plots could not be assigned to the habitats. At the same time, the system of European vegetation syntaxa was going through an extensive revision, which was finally published as *EuroVegChecklist* (Mucina et al. 2016). Therefore, an electronic expert system was developed as an alternative approach of identification of EUNIS habitats in the vegetation-plot databases, based on the principles and methods developed by Bruehlheide (1995, 1997, 2000), Kočí et al. (2003), Chytrý (2007; see also Chytrý & Tichý 2018), Landucci et al. (2015) and Mucina et al. (2016), with further modifications. This expert system was independent of plot assignment to syntaxa, but it used information about species composition of individual habitats from the syntaxonomical scientific literature.

Simultaneously with this work, EUNIS habitat classification for grasslands, shrublands and forests was also considerably revised (Schaminée et al. 2013, 2014, 2016a, Janssen et al. 2016) and the proposed revisions were subject to public consultations. Meanwhile, we were continuously improving the expert system software to enable more accurate and reliable identification of habitats, and at the same time, the databases of vegetation plots were growing, and many gaps in their geographical coverage were filled. Finally, the Euro+Med PlantBase was completed in February 2018, providing standard taxonomic concepts and nomenclature for the entire European and Mediterranean vascular flora (Euro+Med 2006–2018). We adopted this source as a standard for plant taxonomy and nomenclature in the outputs from EVA.

In response to all of these significant achievements, it was necessary to update and consolidate the results obtained in our previous work, to reflect the changes in the EUNIS habitat classification, and to make use of the most recent technological advances, new data and standard taxonomy and nomenclature. The aim of this report is to provide updated lists of indicator species for the

revised EUNIS classification of habitat groups E (Grasslands), F (Shrublands) and G (Forests).

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 (and often also non-vascular) plant species, estimation 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 compiled from the EVA database (Chytrý et al. 2016) and several other databases not included in EVA but provided for the purpose of this analysis (see Appendix F). We selected all the available vegetation plots, including those representing non-target habitats such as coastal, aquatic, wetland, mire or inland sparsely vegetated habitats. However, we excluded the plots that reported only species composition without cover-abundance information on individual species and the plots in which we detected obvious errors that could lead to their misclassification. This dataset contained a total of 1,563,417 vegetation plots from Europe, of which 1,337,083 were georeferenced (see Figure 3.1). The dataset was prepared using the Turboveg 3 program (S. M. Hennekens, unpublished) and analysed using the Juice 7 program (Tichý 2002). It is by far the most extensive dataset of vegetation plots ever compiled and analysed.

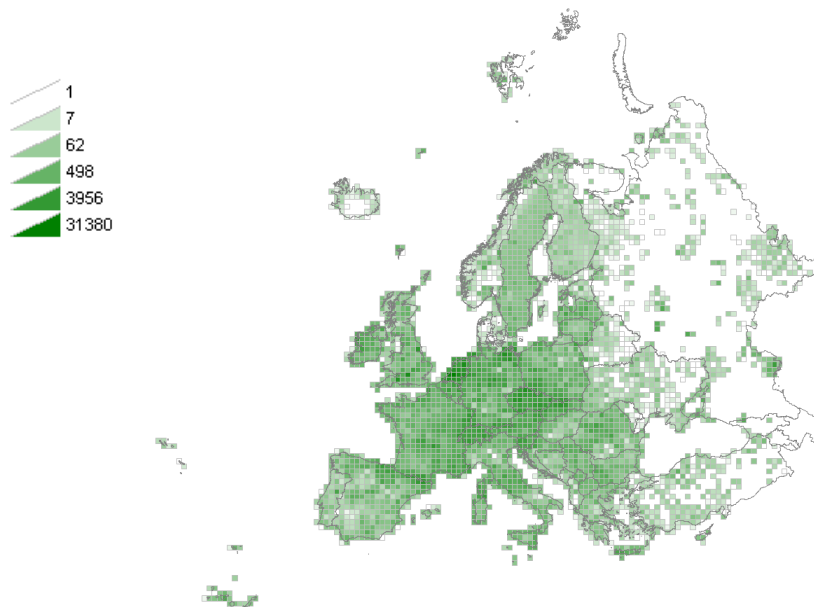


Figure 3.1. Density of 1,337,083 georeferenced plots in EVA and other plots provided for this project in 50 x 50 km grid cells (accessed on 19 September 2018).

The taxon names in this dataset originated from several source databases managed in Turboveg 2 (Hennekens & Schaminée 2001), which use different taxon lists with partly inconsistent taxonomic concepts and nomenclature. Taxon names were unified using the Turboveg 3 program in two steps. Firstly, the names from the original databases were interpreted within a regional context by experts in regional floras, considering the taxonomic concepts and nomenclature used in the focal regions of each database. This step was important because it solved many issues related to regional differences in the use of some names. In this step, taxon lists of most of the European vegetation-plot databases (including all the largest ones) were matched to the SynBioSys Taxon Database, a working database of the EVA project that is not linked to a single unified taxonomic standard. Secondly, the names 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 Dr. Eckhard von Raab-Straube from the Botanischer Garten und Botanisches Museum Berlin-Dahlem in March 2018. Synonyms that can relate to more than one accepted name were assigned to one of these names following the prevailing use of this synonym in most of the modern European floras. The names from the SynBioSys Taxon Database or the names from the taxon lists of the source vegetation-plot databases were used for ca. 3.7% of European vascular plant taxa that did not match any valid name or synonym of the Euro+Med PlantBase.

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

The expert system for EUNIS grassland, shrubland and forest habitats described in this report is used for identifying vegetation plots belonging to these habitats in European vegetation databases based on species composition and cover-abundances of particular species or species groups. It was developed as a software tool implemented in the Juice 7 software and, in a simpler form, also in the Turboveg 3 software. The software uses formal definitions of particular habitats, which are written as logical formulas in an editable expert system script stored as a TXT file (see Appendix D). Each plot from a vegetation database submitted to the software is checked to test whether or not it meets the conditions of some of the formal definitions of habitats included in this script. If it does, it is assigned to this habitat.

The expert system script is divided into three sections. Section 1 merges selected taxon names. In most cases, merging concerns subspecies, varieties or forms that are merged into their parent species in order to achieve

consistency of taxonomic concepts across the dataset in cases in which some authors recorded only species and others also intraspecific taxa. Similarly, taxonomically difficult groups of species containing many misidentifications were merged into species aggregates. Also, some of the names not matched to unified concepts or Euro+Med nomenclature in Turboveg 3 were merged here with the names corresponding to the unified concepts. Section 2 defines species groups by listing species that belong to each of them. Section 3 comprises logical definitions of habitat types consisting of relational operators, which define individual assignment criteria, and logical operators AND, OR and NOT, which combine the individual assignment criteria.

The advantages of the expert system approach are that it (i) enables identification of vegetation plots even if they have not been labelled by a name of a habitat or syntaxon; (ii) applies habitat classification consistently across the whole of Europe, unlike assignments by human experts, which depend on subjective regional judgement and varying traditions; (iii) provides explicit qualitative and quantitative criteria used for plot assignment to habitats; (iv) can be used to classify any vegetation plot obtained in the future using the same criteria; (v) can be modified 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:

- (i) species-based assignment criteria: plant species composition or relative cover-abundances of plant species in vegetation plots (internal classification criteria according to De Cáceres et al. 2015);
- (ii) location-based assignment criteria: information about plot location, such as geographical coordinates, which can be translated into plot location within individual biogeographical regions (e.g. boreal vs temperate) or habitat complexes (e.g. coastal vs inland), or altitude (external classification criteria according to De Cáceres et al. 2015).

Species-based assignment criteria

Species-based assignment criteria are either qualitative, i.e. presence or absence of a species or a species group in a plot, or quantitative, i.e. cover-abundance of a species or a species group in a plot being greater or less than a specified threshold of percentage cover-abundance or than the percentage cover-abundance of another species or species group. In most cases, these assignment criteria are applied using the relational operators GR (= greater than), GE (= greater than or equal to) or EQ (equal to). The examples in the following text use GR, which is the most commonly used operator in the expert system script, but GE or EQ can be used instead of GR. Both the qualitative and quantitative criteria can be applied either to single species or to species groups.

When applied to **single species**, the qualitative criterion assesses whether the species is present or absent in a plot, whereas the quantitative criterion assesses whether percentage cover-abundance of the species is greater or less

than a threshold. In the script, the qualitative criterion is defined as `Species name GR 00`, meaning that the cover of this species is greater than zero, while for the quantitative criterion a non-zero percentage value is given, for example, `Fagus sylvatica GR 50` means that the cover of *Fagus sylvatica* in the plot must be greater than 50%. Optionally, the cover of a species can be compared with the total cover of all species occurring in the plot, for example, `Corylus avellana GR $50` means that the cover of *Corylus avellana* is greater than 50% of the total percentage cover of all species in the plot.

When applied to **species groups**, the qualitative criterion assesses whether a certain number of species of the group is present in the plot, or whether the number of species of one group is greater or less than the number of species of another group (or 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). 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 that was proposed by Chytrý et al. (2005) and recently 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 were compiled so as to characterize particular habitats and to enable their identification. The initial lists of species included in the groups were based on various phytosociological literature, information from European flora handbooks, personal field experience, data from our previous reports (Schaminée et al. 2013, 2014, 2016a, b) and fact sheets of the European Red List of Habitats (Janssen et al. 2016). These initial lists were critically revised and extensively modified based on multiple classification trials with successive versions of the expert system. Species that improved the quality of identification of habitats were added to individual groups while species that contributed to misidentifications were removed from the groups.

The expert system contains two basic types of species groups: 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. Individual groups are identified there by the symbols `###` or `##D`, the former meaning that the group can be used only as a functional group, while the latter meaning that the group can be used both as functional and discriminating.

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

- A plot contains 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 at least three species of the functional group Dwarf-shrubs must be present in the plot).
- A plot contains more species from one group than from another group (`### Group-name1 GR ### Group-name2` in the script; for example `### Wet-grassland-herbs GR ### Mesic-grassland-herbs` means that the plot has to contain more herb species of wet grassland than of mesic grassland).

The quantitative assignment rules for functional species groups are as follows:

- The total cover of a species group in the plots is 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 is greater than 50%).
- The total cover of a species group is greater than that of another group (`#TC Group-name1 GR #TC Group-name2` in the script; for example `#TC Wet-grassland-herbs GR #TC Mesic-grassland-herbs` means that the plot contains a greater total cover of wet grassland herbs than that of mesic grassland herbs).
- The total cover of a species group is 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 cover of the dark taiga trees in the plot is 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* has a greater cover than 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 is greater than $n\%$ of the total cover of all species in the 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 $50` means that the total cover of dwarf shrubs is greater than 50% of the total cover of all species in the plot).
- Finally, a general group containing all the species occurring in a plot can be created, and its total cover computed using the `#T$` notation in the script. Such a group can be used to define the total cover of vegetation in the plot (e.g. `#T$ GR 30` means that the total vegetation cover in the plot is greater than 30%). Alternatively, it can define the assignment rule that the total cover of a species group is greater than the total cover of all species in the plot except the total cover of species belonging to this 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 group involved in the comparison).

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 definition based on the functional species groups (G16 *Fagus* forest on acid soils):

- ((<#TC *Fagus-sylvatica-orientalis* GR 30> AND <#TC *Fagus-sylvatica-orientalis* GR #TC Trees EXCEPT #TC *Fagus-sylvatica-orientalis*>) AND <### +04 Acidophilous-forest-species GR ### +04 Eutrophic-deciduous-forest-species>) NOT <#TC +04 Eutrophic-deciduous-forest-species GR 25>

This means that the total cover of the functional species groups including the two species *Fagus sylvatica* and *F. orientalis* has to be greater than 30% and at the same time, it has to be greater than the total cover of all the other trees. In addition, the number of acidophilous forest species has to be greater than the number of eutrophic deciduous-forest species and the total cover of the eutrophic deciduous-forest species cannot be greater than 25%.

Discriminating species groups. The concept of discriminating species groups follows the proposals of Dengler et al. (2006), Willner (2011) and the principles of the expert system for European vegetation classes developed by Mucina et al. (2016). 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 reliable identification of this habitat. One species can be assigned to more than one of these groups. A plot is assigned to that habitat for which its discriminating species group is most represented in this plot. The measure of representation is either the number of species of the group (in that case the ##D string is used in the formulas in Section 3 of the expert system script) or, in most cases, the sum of square-rooted percentage covers of individual species (##Q). The latter measure provides an intermediate solution between an emphasis on species numbers and an emphasis on total percentage cover, which could, in some cases, lead to counter-intuitive classification (especially when a plot contains several species of one habitat with a small total cover and one species of another habitat with a high cover). The expert system includes several independent sets of discriminating species groups, which are identified by a number after the + sign at the beginning of the group name. Each comparison of species numbers or covers is done only among the groups with the same number. In the current version of the expert system, groups marked as +01 are compared only among coastal habitats, +02 among inland sparsely vegetated habitats, +03 among all other open habitats, and +04 among a few specific habitats of temperate broadleaved deciduous forests. For example, the expression ##Q +03 E12a-Semi-dry-perennial-calcareous-grassland in the expert system script means that the sum of square-rooted percentage covers of the species belonging to the discriminating species group of semi-dry perennial calcareous grassland in the plot must be greater than the sum of square-rooted percentage covers of the species of the discriminating species group of any other open habitat except coastal and inland sparsely vegetated.

The importance of the functional species groups and the discriminating species groups for habitat classification varies among habitat groups. In the habitats defined by the presence of certain dominant species, especially forest and scrub habitats, the use of functional groups in combination with quantitative assignment criteria is often sufficient and most effective to define the habitat, e.g. heath is a habitat determined by dominance of a few species of ericoid dwarf shrubs. Therefore the threshold total covers of functional groups or even covers of single species are used to define forest and scrub habitats. However, for the habitats characterized by a weak or irregular dominance of specific species, particularly for grasslands, this method of habitat definition rarely provides satisfactory classification. For such habitats, we applied the cover of discriminating species groups as the main classification criterion. In such a way, the cover is compared among larger groups of species characterizing the habitat, not only potential dominants, and each plot is assigned to the habitat that is represented by a greater cover of its species in the plot than any other habitat.

An example of a definition based on a discriminating species group in combination with functional species groups (E31a Mediterranean tall humid inland grassland):

- (<##Q +03 E31a-Mediterranean-tall-humid-inland-grassland>
AND <#01 E31a-Mediterranean-tall-humid-inland-grassland-
specialists>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

This means that the sum of square-rooted percentage covers of the discriminating species group of the habitat Mediterranean tall humid inland grassland is greater than that of any other open habitat included in this comparison. In addition, at least one species of the functional group of specialist species of the Mediterranean tall humid inland grassland occurs, and the cover of trees or shrubs is not greater than 5%.

Location-based assignment criteria

Some habitats in the EUNIS classification are partly defined by their occurrence in particular vegetation zones, altitudinal belts or habitat complexes. For example, some coniferous forests are divided into boreal and temperate habitats, or some habitats are defined by their occurrence on coastal dunes, although similar habitats also occur on inland dunes. Especially if such habitats are species-poor, it may be impossible to classify them purely according to plant species composition, because at least in some places their species composition can be identical between the boreal and temperate zones, or between coastal and inland dunes. Therefore, we included several location-based assignment criteria into the formal definition of habitat types in the expert system, in addition to the species-based assignment criteria. However, we preferred to try defining the habitat types purely on the basis of species composition and we added the location-based criteria only when the classification based exclusively

on species-based criteria would not separate some types or would require 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"), respectively. 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 1,000 m above sea level). 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 1,000 m above sea level.

The location-based criteria have to be provided for each vegetation plot in a specific database field (so-called header data" in the terminology of Turboveg and Juice programs). The expert system uses the following variables 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 <http://ecoregions2017.appspot.com/>). The following ecoregions were used in the expert system:
 - 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 5,000 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 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 Arctic-alpine-bryophytes-lichens GR #T\$> AND <#02 Arctic-alpine-bryophytes-lichens>) NOT (<#TC Sphagnum GR 05> OR <#TC Trees GR 05>)) AND (<\$N DEG_LAT GR 65> OR <\$C Country EQ Iceland>)

This means that the total cover of the functional group of Arctic and alpine bryophytes and lichens is greater than the cover of any other species in the plot, at the same time at least two species of this group occur, the total cover of *Sphagnum* species or trees is not greater than 5% and the latitude is greater than 65°N or the plot is from Iceland.

The hierarchical structure of the expert system

The structure of the expert system is hierarchical. Each habitat definition is assigned to a priority degree. The definitions with the highest priority are applied to the dataset first, resulting in habitat assignment of those plots that meet the requirements of these definitions, while other plots remain unclassified. Then, the definitions with lower priority are applied only to the plots that have not been classified by the plots of higher priority.

One habitat can have two definitions with different priority levels. The definition applied at a higher level can be based on the occurrence or high total cover of species from a sociological group that comprises species narrowly specialized to this habitat. This definition usually classifies those plots that are very typical examples of the 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, can be applied to the unclassified plots. This definition classifies plots that are less typical examples of the habitat but still exhibit a higher degree of membership to this habitat than to any other habitat. For example, the habitat E11a Pannonian and Pontic sandy steppe can be defined by this formula with a higher priority level:

- <#TC E11a-Pannonian-and-Pontic-sandy-steppe-specialists GR15> NOT (<#TC Trees GR05> OR <#TC Shrubs GR05>)

This means that the total cover of the functional species group E11a-Pannonian-and-Pontic-sandy-steppe-specialists, including a selection of narrow specialists of this habitat, must have a cover greater than 15% and neither the groups of trees nor the group of shrubs can have a cover greater than 5%. Then, the following formula with a lower priority level

defining the same habitat is applied to the plots that were not classified by the formula with the higher priority level:

- (`<##Q E11a-Pannonian-and-Pontic-sandy-steppe>` AND `<#03 E11a-Pannonian-and-Pontic-sandy-steppe>`) NOT (`<#TC Trees GR05>` OR `<#TC Shrubs GR05>`)

This means that the sum of square-rooted percentage covers of a discriminating species group of this habitat (including both the narrow specialists and frequently occurring less specialized species) is higher than the sum of square-rooted percentage covers of discriminating species group of any other habitat *and* the plot contains at least three species of this group, *and* the total cover of both trees and shrubs does not exceed 5%.

The current version of the expert system contains habitat definitions assigned to seven priority levels. 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: Habitats of coastal heaths, dune scrub and dune woodlands (habitat group B) and Macaronesian heaths (habitat F43) 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 occurrence on the coast, on coastal dunes, or in Macaronesia.
- Level 6: Other (i.e. herbaceous) coastal habitats (groups A and B) are defined based on the discriminating species groups of habitats within these two groups, in combination with occurrence on the coast, possibly in combination with other assignment criteria.
- Level 5: The broad habitat group H (inland sparsely vegetated) is defined based on a cover not greater than 30% in combination with the occurrence of at least one species typical of the habitats of this group, and individual habitats within this group are preliminarily defined based on the preliminary lists of their discriminating species groups.
- Level 4: Habitats of shrublands (group F) and forests (group G) not classified above, some habitats of grasslands (group E) and some herbaceous habitats of coastal dunes (group B) are classified using definitions based on a high cover of characteristic dominant species or functional groups of characteristic dominant species, or presence of a specified minimum number of specialist species.
- Level 3: Broad habitat groups of forest (group G), scrub and dwarf scrub (group F), and tree plantations are defined based on the dominance of trees, shrubs or dwarf shrubs. Vegetation plots that have not been previously classified to specific habitats within these groups are classified directly to these broad groups.
- Level 2: All open habitats except inland sparsely vegetated (group H) and most coastal habitats (groups A and B) are defined based on the discriminating species groups.
- Level 1: Broad habitats of inland surface waters (group C), mires (group D), grasslands (group E) and inland sparsely vegetated (group H) 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 broad groups.

Results of the expert system

We developed formal definitions for 55 habitats of grasslands (group E), 43 habitats of shrublands (group F) and 46 habitats of forests (group G) and included them in the expert system. In addition, the expert system contains 102 preliminary definitions of habitats of other groups, which were however not tested and may misclassify plots; therefore they require a considerable revision in the future for these habitat types. The species composition of all 1,563,417 vegetation plots was compared with all the formal definitions. The plots assigned to individual habitats were checked for species composition and mapped, and based on the results, formal definitions were adjusted and errors in the input database corrected. This procedure was repeated several times until an optimal solution was achieved. At the end, 664,978 plots were classified to one of the habitats of groups E, F or G, 1,009,127 plots were classified directly to one of these three habitats groups but not to particular habitats, 425,700 plots were classified to other habitat groups or their habitats, and 128,590 plots remained unclassified.

3.4 Indicator species of the revised EUNIS habitats of grasslands, shrublands and forests

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 provided: 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's species diversity. Diagnostic species are species with occurrences concentrated in the habitat, being absent or rare in other habitats. As such they are good positive indicators of the habitat, but they may be absent at many sites where the habitat occurs. Constant species are species frequently occurring in the habitat, but they are not exclusive to the 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 the habitat, thus determining the habitat physiognomy.

For the purposes of computing indicator species, the classified vegetation-plot dataset was geographically stratified (Knollová et al. 2005). This was needed to remove the effect of geographically unbalanced sampling effort across Europe, which meant that some relatively small areas had a high concentration of vegetation plots, while other (often large) areas with less intensive research were represented by few or no plots, even though 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 x 5 minutes of latitude x longitude (corresponding to approximately 5.5 x 6 km at 50° N). If a cell of this grid contained more than 1 plot belonging to the same habitat,

one plot was selected randomly, and the others were deleted. The minimum total number of plots per habitat in the whole dataset after stratification was set to 10. The resampled dataset contained many fewer plots than the original dataset but it was more balanced and more representative. Plots classified to other habitat types than grasslands, shrublands and forests were retained in the dataset to provide background for calculating the degree of concentration of species occurrences within the target vegetation type in the computation of diagnostic species.

Diagnostic species were determined based on the degree of concentration of their occurrences in groups of plots representing each EUNIS habitat. This degree of concentration was calculated using the phi coefficient of association (Sokal & Rohlf 1995) standardized to an identical number of relevés across all groups, which was arbitrarily set to 1% of the total data set (Tichý & Chytrý 2006). The species with a value of phi for the particular habitat greater than 0.15 were considered as diagnostic for this habitat. However, for some habitats represented by a low number of plots in the stratified dataset, the concentration of species occurrences within the type may not have been statistically significant. Therefore, statistical significance of the species-habitat association was tested using the Fisher's exact test (Sokal & Rohlf 1995), and if this association was 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 constancy (= percentage occurrence frequency) in the target habitat at least 10%.

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, or no dominant species if vegetation is very sparse or if cover values of all species are lower than 25%.

Records of taxa identified only to the genus level and records of epiphytic lichens 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 the plots, their fidelity and frequency values can be underestimated. A solution would be to compute these values only from plots where they were recorded (or would be recorded if present), but this was not possible because vegetation plots with no bryophytes and lichens in most cases do not carry information whether these species were really absent or were present but not recorded.

The resulting lists of indicator species for EUNIS grassland, shrubland and forest habitats, including diagnostic, constant and dominant species, is in Appendix E. For some habitat types no indicator species have been defined, as these types

cannot be floristically characterized. It concerns the habitat types E71, E72, E73, G3F1, G56, G57 and G58; the same applies to some of the newly added habitat types with the new codes T1J, T1K, T2A and T3L (for code references, see Appendix A).

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Appendix A: List of the revised EUNIS grassland habitat types (Group E), heathland, scrub and tundra habitat types (Group F), and forest habitat types (Group G) including indication of availability of distribution map and indication of EUNIS-syntaxon crosswalk.

New code	Old code	Habitat name	Map & Indicators species	EUNIS-Syntaxon crosswalk
R11	E11a	Pannonian and Pontic sandy steppe	x	x
R12	E11b	Cryptogam- and annual-dominated vegetation on siliceous rock outcrops	x	x
R13	E11d	Cryptogam- and annual-dominated vegetation on calcareous and ultramafic rock outcrops	x	x
R14	E11e	Perennial rocky grassland of the Italian Peninsula	x	x
R15	E11f	Continental dry rocky steppic grassland and dwarf scrub on chalk outcrops	x	x
R16	E11g	Perennial rocky grassland of Central and South-Eastern Europe	x	x
R17	E11h	Heavy-metal dry grassland of the Balkans	x	x
R18	E11i	Perennial rocky calcareous grassland of subatlantic-submediterranean Europe	x	x
R19	E11j	Dry steppic submediterranean pasture of the Amphi-Adriatic region	x	x
R1A	E12a	Semi-dry perennial calcareous grassland (meadow steppe)	x	x
R1B	E12b	Continental dry grassland (true steppe)	x	x
R1C	E12c	Desert steppe	x	x
R1D	E13a	Mediterranean closely grazed dry grassland	x	x
R1E	E13b	Mediterranean tall perennial dry grassland	x	x

R1F	E13c	Mediterranean annual-rich dry grassland	x	x
R1G	E15a	Iberian oromediterranean siliceous dry grassland	x	x
R1H	E15b	Iberian oromediterranean basiphilous dry grassland	x	x
R1J	E15c	Cyrno-Sardean oromediterranean siliceous dry grassland	x	x
R1K	E15d	Balkan and Anatolian oromediterranean dry grassland	x	x
R1L	E15e	Madeiran oromediterranean siliceous dry grassland	x	x
R1M	E17	Lowland to montane, dry to mesic grassland usually dominated by <i>Nardus stricta</i>	x	x
R1N	E18	Open Iberian supramediterranean dry acid and neutral grassland	x	x
R1P	E19a	Oceanic to subcontinental inland sand grassland on dry acid and neutral soils	x	x
R1Q	E19b	Inland sanddrift and dune with siliceous grassland	x	x
R1R	E1A	Mediterranean to Atlantic open, dry, acid and neutral grassland	x	x
R1S	E1B	Heavy-metal grassland in Western and Central Europe	x	x
R1T	E1F	Azorean open, dry, acid to neutral grassland	x	x
R21	E21	Mesic permanent pasture of lowlands and mountains	x	x
R22	E22	Low and medium altitude hay meadow	x	x
R23	E23	Mountain hay meadow	x	x
R24	E24	Iberian summer pasture (vallicar)	x	x
R31	E31a	Mediterranean tall humid inland grassland	x	x
R32	E32a	Mediterranean short moist grassland of lowlands	x	x
R33	E32b	Mediterranean short moist grassland of mountains	x	x
R34	E33	Submediterranean moist meadow	x	x

R35	E34a	Moist or wet mesotrophic to eutrophic hay meadow	x	x
R36	E34b	Moist or wet mesotrophic to eutrophic pasture	x	x
R37	E35	Temperate and boreal moist or wet oligotrophic grassland	x	x
R41	E41	Snow-bed vegetation	x	x
R42	E43a	Boreal and arctic acidophilous alpine grassland	x	x
R43	E43b	Temperate acidophilous alpine grassland	x	x
R44	E44a	Arctic-alpine calcareous grassland	x	x
R45	E44b	Alpine and subalpine calcareous grassland of the Balkans and Apennines	x	x
R51	E52a	Thermophilous forest fringe of base-rich soils	x	x
R52	E52b	Forest fringe of acidic nutrient-poor soils	x	x
R53	E52c	Macaronesian thermophilous forest fringe	x	x
R54	E53	Pteridium aquilinum vegetation	x	x
R55	E54	Lowland moist or wet tall-herb and fern fringe	x	x
R56	E55	Montane to subalpine moist or wet tall-herb and fern fringe	x	x
R57	E56	Herbaceous forest clearing vegetation	x	x
R61	E61	Mediterranean inland salt steppe	x	x
R62	E62	Continental inland salt steppe	x	x
R63	E63	Temperate inland salt marsh	x	x
R64	E64	Semi-desert salt pan	x	x
R65	E65	Continental subsaline alluvial pasture and meadow	x	x
R71	E71	Temperate wooded pasture and meadow		
R72	E72	Hemiboreal and boreal wooded pasture and meadow		
R73	E73	Mediterranean wooded pasture and meadow		
S11	F11	Shrub tundra	x	x
S12	F12	Moss and lichen tundra	x	x

S21	F21	Subarctic and alpine dwarf Salix scrub	x	x
S22	F22a	Alpine and subalpine ericoid heath	x	x
S23	F22b	Alpine and subalpine Juniperus scrub	x	x
S24	F22c	Subalpine genistoid scrub of the Amphi-Adriatic region	x	x
S25	F23	Subalpine and subarctic deciduous scrub	x	x
S26	F24	Subalpine Pinus mugo scrub	x	x
S31	F31a	Lowland to montane temperate and submediterranean Juniperus scrub	x	x
S32	F31b	Temperate Rubus scrub	x	x
S33	F31c	Lowland to montane temperate and submediterranean genistoid scrub	x	x
S34	F31d	Balkan-Anatolian submontane genistoid scrub	x	x
S35	F31e	Temperate and submediterranean thorn scrub	x	x
S36	F31f	Low steppic scrub	x	x
S37	F31g	Corylus avellana scrub	x	x
S38	F31h	Temperate forest clearing scrub	x	x
S41	F41	Wet heath	x	x
S42	F42	Dry heath	x	x
S43	F43	Macaronesian heath	x	x
S51	F51	Mediterranean maquis and arborescent matorral	x	x
S52	F53	Submediterranean pseudomaquis	x	x
S53	F54	Spartium junceum scrub	x	x
S54	F55	Thermomediterranean arid scrub	x	x
S61	F61a	Western basiphilous garrigue	x	x
S62	F61b	Western acidophilous garrigue	x	x
S63	F62	Eastern garrigue	x	x
S64	F65	Macaronesian garrigue	x	x
S65	F67	Mediterranean gypsum scrub	x	x
S66	F68a	Mediterranean halo-nitrophilous scrub	x	x
S67	F68b	Aralo-Caspian semi-desert	x	x
S68	F68c	Semi-desert sand dune with sparse scrub	x	x
S71	F71	Western Mediterranean spiny heath	x	x

S72	F73	Eastern Mediterranean spiny heath (phrygana)	x	x
S73	F74a	Western Mediterranean mountain hedgehog-heath	x	x
S74	F74b	Central Mediterranean mountain hedgehog-heath	x	x
S75	F74c	Eastern Mediterranean mountain hedgehog-heath	x	x
S76	F74d	Canarian mountain hedgehog-heath	x	x
S81	F81	Canarian xerophytic scrub	x	x
S82	F82	Madeiran xerophytic scrub	x	x
S91	F91	Temperate riparian scrub	x	x
S92	F92	Salix fen scrub	x	x
S93	F93	Mediterranean riparian scrub	x	x
S94	F94	Semi-desert riparian scrub	x	x
T11	G11	Temperate Salix and Populus riparian forest	x	x
T12	G12a	Alnus glutinosa-Alnus incana forest on riparian and mineral soils	x	x
T13	G12b	Temperate hardwood riparian forest	x	x
T14	G13	Mediterranean and Macaronesian riparian forest	x	x
T15	G14	Broadleaved swamp forest on non-acid peat	x	x
T16	G15	Broadleaved mire forest on acid peat	x	x
T17	G16a	Fagus forest on non-acid soils	x	x
T18	G16b	Fagus forest on acid soils	x	x
T19	G17a	Temperate and submediterranean thermophilous deciduous forest	x	x
T1A	G17b	Mediterranean thermophilous deciduous forest	x	x
T1B	G18	Acidophilous Quercus forest	x	x
T1C	G19a	Temperate and boreal mountain Betula and Populus tremula forest on mineral soils	x	x
T1D	G19b	Southern European mountain Betula and Populus tremula forest on mineral soils	x	x
T1E	G1Aa	Carpinus and Quercus mesic deciduous forest	x	x
T1F	G1Ab	Ravine forest	x	x

T1G	G1Ba	Alnus cordata forest	x	x
T1H	G1C	Broadleaved deciduous plantation of non site-native trees	x	x
T1J		Deciduous self sown forest of non site-native trees		
T1K		Broadleaved deciduous plantation of site-native trees		
T21	G21	Mediterranean evergreen Quercus forest	x	x
T22	G22	Mainland laurophyllous forest	x	x
T23	G23	Macaronesian laurophyllous forest	x	x
T24	G24	Olea europaea-Ceratonia siliqua forest	x	x
T25	G25a	Phoenix theophrasti vegetation	x	x
T26	G25b	Phoenix canariensis vegetation	x	x
T27	G26	Ilex aquifolium forest	x	x
T28	G27	Macaronesian heathy forest	x	x
T29	G28	Broadleaved evergreen plantation of non site-native trees	x	
T2A		Broadleaved evergreen plantation of site-native trees		
T31	G31a	Temperate mountain Picea forest	x	x
T32	G31b	Temperate mountain Abies forest	x	x
T33	G31c	Mediterranean mountain Abies forest	x	x
T34	G32	Temperate subalpine Larix, Pinus cembra and Pinus uncinata forest	x	x
T35	G34a	Temperate continental Pinus sylvestris forest	x	x
T36	G34b	Temperate and submediterranean montane Pinus sylvestris-Pinus nigra forest	x	x
T37	G34c	Mediterranean montane Pinus sylvestris-Pinus nigra forest	x	x
T38	G34d	Mediterranean montane Cedrus forest	x	
T39	G36	Mediterranean and Balkan subalpine Pinus heldreichii-Pinus peuce forest	x	x
T3A	G37	Mediterranean lowland to submontane Pinus forest	x	x
T3B	G38	Pinus canariensis forest	x	x
T3C	G39a	Taxus baccata forest	x	x

T3D	G39b	Mediterranean Cupressaceae forest	x	x
T3E	G39c	Macaronesian Juniperus forest	x	x
T3F	G3A	Dark taiga	x	x
T3G	G3B	Pinus sylvestris light taiga	x	x
T3H	G3C	Larix light taiga	x	x
T3J	G3Da	Pinus and Larix mire forest	x	x
T3K	G3Db	Picea mire forest	x	x
T3L		Coniferous self sown forest of non site-native trees		
T3M	G3F1	Coniferous plantation of non site-native trees		
T3N	G3F2	Coniferous plantation of site-native trees	x	
T41	G56	Early-stage natural and semi-natural forest and regrowth		
T42	G57	Coppice and early stage plantations		
T43	G58	Recently felled areas		

Appendix B: Descriptions of the revised EUNIS grassland habitat types (Group E), heathland, scrub and tundra habitat types (Group F), and forest habitat types (Group G)

New code	Old code	New name	Description
R11	E11a	Pannonian and Pontic sandy steppe	Rather open steppe grassland dominated by perennial tussock grasses and herbs, with frequent spring annuals and cryptogams, typical of nutrient-poor, sandy soils on plains and dunes through the Pannonian, Pontic and southern Baltic regions. The climate is strongly continental with cold winters, often with long frosts and shallow snow, and hot, droughty summers. Traditionally used for extensive grazing by stock, particularly sheep, but now widely abandoned.
R12	E11b	Cryptogam- and annual-dominated vegetation on siliceous rock outcrops	Open pioneer grassland dominated by perennial succulents and annuals, with subordinate small tussock grasses, sometimes geophytes and often a prominent contingent of cryptogams. Typically forming small stands on very shallow and skeletal, impoverished, acid soils on siliceous rock outcrops, eroded slopes and disturbed or artificial habitats like soil heaps and wall tops, the habitat occurs throughout temperate and boreal Europe up to the sub-alpine level, in situations where the permeable soils dry quickly in summer, but where spring rains can permit a quick flush of growth by the annuals.
R13	E11d	Cryptogam- and annual-dominated vegetation on calcareous and ultramafic rock outcrops	Open pioneer grassland with perennial succulents and spring annuals, subordinate small tussock grasses and herbs, and often with a very prominent and rich contingent of cryptogams. Typically found in small patches on very shallow and skeletal, impoverished, base-rich soils on a wide variety of base-rich and sometimes ultramafic bedrocks, and similar artificial habitats like quarry spoil and wall-tops. It is found from the hemiboreal to the submediterranean, occurring mainly at higher altitudes further south.
R14	E11e	Perennial rocky grassland of the Italian Peninsula	Unique to base-rich bedrocks in the Italian Peninsula (and maybe Sicily) and best developed within the submediterranean bioclimatic zone, this grassland is variously dominated by perennial grasses and herbs, or mat formers and sub-shrubs on steeper, rockier ground. Generally species-rich, and sometimes with contingents of annuals and, in disturbed places, geophytes, the habitat sometimes hosts endemic plants. Developed through clearance of broadleaved and mixed forest it is maintained by traditional grazing in a distinctive cultural landscape.
R15	E11f	Continental dry rocky steppic grassland and dwarf scrub on chalk outcrops	Usually open vegetation dominated by perennial mat-forming continental steppe plants on free-draining base-rich soils of rocky chalk outcrops in the Don and (probably) Volga basins.

R16	E11g	Perennial rocky grassland of Central and South-Eastern Europe	Open grassland generally dominated by perennial grasses with rich mixtures of associated rosette herbs, mat-formers and geophytes, and towards southern Europe especially, annuals. It occurs on shallow, impoverished soils over both calcareous and siliceous bedrocks, through the lowlands and submontane zone of central and southern Europe, best developed on steeper ground uncongenial for agriculture, but extended where forest clearance and grazing, particularly by goats, have been part of traditional farming.
R17	E11h	Heavy-metal dry grassland of the Balkans	Grassland confined to droughty, nutrient-poor soils rich in heavy metals derived from ultramafic rocks in the mountains of the Balkans and Cyprus with an open cover of grasses and forbs, including many endemics.
R18	E11i	Perennial rocky calcareous grassland of subatlantic-submediterranean Europe	Open grasslands, dominated by perennials and especially rich in mat-formers, typical of rudimentary, shallow, nutrient-poor, base-rich soils over sloping, rubbly limestone terrain through the lowland to submontane levels in subatlantic and submediterranean Europe where traditionally maintained by extensive grazing.
R19	E11j	Dry steppic submediterranean pasture of the Amphi-Adriatic region	Dry steppic pasture typical of sharply-draining, base-rich soils developed over valley sides, dolines and sink-holes around the Adriatic coasts where the submediterranean climate is characterised by late autumn and spring rains and summer drought. Dominated by often rich mixtures of graminoids, forbs and mat-formers, the habitat is dependent on extensive grazing and now often survives patchily among mosaics of scrub and forest.
R1A	E12a	Semi-dry perennial calcareous grassland (meadow steppe)	Semi-natural grassland on deeper and not so drought-prone, nutrient-poor, base-rich soils over limestones throughout the lowlands and sub-montane levels of submediterranean to hemiboreal Europe. Generally closed and dominated by mixtures of graminoids and forbs, often extremely species-rich, with many rare plants and sometimes striking contingents of orchids and varying much across the large range with different sets of continental or sub-mediterranean companions. Dependent on extensive grazing, usually with sheep, or on an annual mowing, and often developed over centuries of traditional pastoralism, contributing to some striking cultural landscapes.
R1B	E12b	Continental dry grassland (true steppe)	Steppe and steppe-like grassland on mostly base-rich soils over limestones, of varying depth and stoniness, occurring through the continental lowlands to submontane belts of Europe. Dominated by plants adapted to long periods of summer drought, mostly tall tussock grasses and perennial forbs, it shows wide variation in species composition and particular topographic location across the substantial range. In more extreme

			situations, the grasslands are natural, but they often sustain extensive grazing.
R1C	E12c	Desert steppe	Continental, temperate very dry zonal steppe, occurring in a transition belt between the true steppe region and the semi-desert region of the south-east of European Russia and the northern Caucasus, ranging further into Kazakhstan. Dominated by a combination of xerophytic tall and low grasses (<i>Stipa</i> , <i>Koeleria</i>) and xerophytic semi-shrubs (<i>Artemisia</i> , <i>Tanacetum</i>). Vegetation cover is relatively low, with most biomass belowground. Typically found on southern brown soil (chernozems) and light chestnut soils (kastanozems).
R1D	E13a	Mediterranean closely grazed dry grassland	Heavily-grazed pasture of the Mediterranean basin, mostly on silt and clay soils in the lowlands, dominated by rosette plants and small grasses tolerant of intensive herbivory and trampling. The soils are dry in summer which helps exclude nitrophilous plants that might be encouraged by dunging but, refreshed by autumn rains, the herbage remains green and productive through the winter, providing valuable forage. Companion plants vary widely across the large range.
R1E	E13b	Mediterranean tall perennial dry grassland	Grassland of impoverished, base-rich soils over various calcareous bedrocks through the Mediterranean region, where grazing and trampling sustain open or closed swards generally dominated by tall, dense tussock grasses that lend a steppe-like character. Summer drought and disturbance help prevent reversion to forest but can encourage the invasion of aliens.
R1F	E13c	Mediterranean annual-rich dry grassland	Usually ephemeral vegetation related to the yearly cycle of spring rains and summer drought through the Mediterranean zone where a high diversity of small annual plants make a brief colourful appearance on bare patches of mainly base-rich soils. The species composition varies greatly, according to the particular regional terrain and climate and the impact of traditional pastoralism.
R1G	E15a	Iberian oromediterranean siliceous dry grassland	Grassland of base-poor soils over siliceous bedrocks on the slopes and crests of high mountains in the Iberian Peninsula with a short growing season and harsh winters with strong winds which blow the ground free of snow and leave the surface subject to deep cold and the development of freeze-thaw features. The vegetation cover, moderately open to closed, is dominated by prostrate or dwarf grasses and forbs, and includes many endemics.

R1H	E15b	Iberian oromediterranean basiphilous dry grassland	Grassland of base-rich soils over calcareous bedrocks on the slopes and crests of high mountains in the Iberian Peninsula and France, with a short growing season and harsh winters when strong winds blow the ground free of snow and leave the surface subject to deep cold which encourages the development of freeze-thaw features. The vegetation cover, moderately open to closed, is dominated by prostrate or dwarf grasses and forbs, and includes many endemics.
R1J	E15c	Cyrno-Sardean oromediterranean siliceous dry grassland	Grassland of base-poor soils over siliceous bedrocks on the slopes and crests of high mountains in Corsica and (probably) Sardinia, with a short growing season and harsh winters when strong winds blow the ground free of snow and leave the surface subject to deep cold which encourages the development of freeze-thaw features. The cover of vegetation is intermediate to complete, dominated by prostrate herbs, cushion plants and dwarf shrubs, and includes many endemics.
R1K	E15d	Balkan and Anatolian oromediterranean dry grassland	Closed grassland of deeper acid soils occurring over various bedrocks above the tree-line on high mountain slopes and hollows in Greece and Anatolia where snow accumulates and provides springtime irrigation with melt-water. The vegetation is species-rich but the dominants and associates vary from place to place. It provides valuable summer grazing for traditional pastoralism.
R1L	E15e	Madeiran oromediterranean siliceous dry grassland	Highly distinctive tussocky grassland, rich in endemics, restricted to high mountains in Madeira, where it occurs in crevices and on ledges in silicate volcanics where the soils are kept permanently moist by the very humid climate. Typically occurring in mosaics with heaths and forests, the decline of domestic goat grazing has favoured its extension into what were once more accessible situations.
R1M	E17	Lowland to montane, dry to mesic grassland usually dominated by <i>Nardus stricta</i>	Usually dominated by the tightly tussocky <i>Nardus stricta</i> , this grassland is characteristic of nutrient-poor, acidic soils, sometimes seasonally wet, on siliceous substrates through the entire lowlands and sub-montane zone of temperate Europe, though optimally developed in the cooler and rainier climate of the atlantic zone. Other grasses may share dominance but the associated flora is generally rather species-poor and related to the type and intensity of grazing.
R1N	E18	Open Iberian supramediterranean dry acid and neutral grassland	Dominated by small tussock grasses, forbs and mat-formers, including many endemics, this grassland occurs on shallow skeletal soils, nutrient-poor and drought-prone, developed over outcrops of siliceous and ultramafic bedrocks at moderate to high altitudes in the western Iberian Peninsula. Traditionally part of pastoral landscapes, grazed mostly by sheep.

R1P	E19a	Oceanic to subcontinental inland sand grassland on dry acid and neutral soils	Moderately open to closed grassland on nutrient-poor sandy soils, mostly acid to neutral though sometimes calcareous, on plains, river terraces and cliffs through the lowlands and sub-montane belts of temperate Europe. Narrow-leaved, tussocky graminoids dominate, associated herbs can be very numerous and more open swards can have rich annual and cryptogam floras. Across the wide range, there is considerable variety among the dominants and companions and the extreme topoclimate can provide a western outpost for steppe elements.
R1Q	E19b	Inland sanddrift and dune with siliceous grassland	Usually sparse grasslands on sand drifts among inland dunes and other open landscapes, mainly in the north central European lowlands, where the nutrient-poor and highly acidic surface is prone to wind erosion and hot droughty summers, forming a highly distinctive 'Atlantic desert' landscape. Soil development is very slow, pioneer moss vegetation succeeded by an open cover of small tussocky grasses, often with rich contingents of lichens on the compacted surface. Military training zones and abandoned lignite areas provide new situations.
R1R	E1A	Mediterranean to Atlantic open, dry, acid and neutral grassland	Usually ephemeral vegetation related to the yearly cycle of spring rains and summer drought through the western Mediterranean and more fragmentarily into the atlantic and continental zones where a high diversity of small annual plants make a brief colourful appearance on bare patches of nutrient-poor, acidic soils. Typically, the habitat occurs as small patches in intimate mosaics with heath and scrub and has provided a valuable supplementary resource for sheep at lambing time.
R1S	E1B	Heavy-metal grassland in Western and Central Europe	Short open sward with a distinctive metallophyte component, occurring on shallow, skeletal soils over natural rock exposures with heavy metals in western and central Europe, on mine spoil or ground contaminated by dust and waters from such sources. Typically occurs locally in other landscapes, colonising slowly and sustained by the extreme environment, though also sometimes dependent on grazing by wild herbivores for maintaining early successional stages which are richer in cryptogams.
R1T	E1F	Azorean open, dry, acid to neutral grassland	Ungrazed grassland, with mixtures of grasses, herbs and mat-formers, including many endemics which may dominate, confined to the Azores where it is characteristic of exposed or unstable rocky slopes, ledges and landslips with nutrient-poor acid soils. The species composition varies according to the altitude and climate, rock type and stability of the terrain.

R21	E21	Mesic permanent pasture of lowlands and mountains	The most common and widespread kind of traditionally managed pasture on deeper, well-drained mesic soils throughout temperate Europe, with many local types related to regional climate, terrain and pastoral traditions. Typically dominated by mixtures of productive grasses and herbs, it can be species-rich with distinctive scarce and rare plants where low input grazing and dunging are maintained. Often once part of wider pastoral landscapes with distinctive associated meadows, it is now widely transformed by intensive grazing and transitions are commonplace.
R22	E22	Low and medium altitude hay meadow	The most common and widespread kind of traditionally managed meadow in deeper, well-drained mesic soils throughout the lowlands and foothills of temperate Europe, with many local types differing according to regional climate, terrain and mowing traditions. Typically dominated by mixtures of productive grasses and herbs, it can be very species-rich with distinctive scarce and rare plants where traditional regimes of mowing, grazing and dunging are maintained. Often once part of wider agricultural landscapes with distinctive associated pastures, it is now widely transformed by shifts to silage production and transitions to intensive silage grasslands are commonplace.
R23	E23	Mountain hay meadow	The typical kind of traditionally-managed meadow on deep, well-drained, mesic soils throughout the mountains of northern and central Europe where there is a short cool growing season. There are many local types differing according to regional climate, terrain and farming traditions but the vegetation is typically dominated by mixtures of productive grasses and herbs, and can be species-rich with distinctive scarce and rare plants where traditional regimes of mowing, grazing and dunging are maintained. Often once part of wider agricultural landscapes with distinctive associated pastures, good examples of the habitat now often survive more fragmentarily and transitions to improved silage grassland are widespread.
R24	E24	Iberian summer pasture (vallicar)	Highly distinctive tall grass pasture and meadow associated with traditional cattle rearing in the lowlands and foothills of western Iberia where a mediterranean or submediterranean climate and the long-established grazing and occasional mowing regimes sustain a striking contingent of regional plants and association with dehesa. The substrate is sandy or clayey, often subject to temporary flooding with rapid dessication, conditions which affect the pattern of grass dominance.
R31	E31a	Mediterranean tall humid inland grassland	Rush- and tall grass-dominated vegetation of seasonally waterlogged soils, mostly acidic, occurring in depressions throughout the Mediterranean basin. Though not dependent on grazing, it can be a valuable source of fodder for cattle and sheep in

			traditional pastoral systems during summer when other pastures are dried up.
R32	E32a	Mediterranean short moist grassland of lowlands	Short species-rich grassy sward, traditionally sustained by heavy grazing, on clay soils through the Mediterranean region where there is winter waterlogging and distinctive surface cracking in the droughty summer.
R33	E32b	Mediterranean short moist grassland of mountains	Closed tussocky grassland of moist ground at high altitudes in the west Mediterranean which, remaining green through the summer, provide valuable grazing for transhumant cattle and sheep.
R34	E33	Submediterranean moist meadow	Moist meadows of sandy to clayey, mesotrophic to eutrophic soils on riverside terraces and gentle slopes, mainly within the lowlands and sub-montane zone of south-eastern Europe, extending westwards to central Italy. Winter and spring flooding is common but later in the season the ground may dry up and become locally saline. The species composition reflects regional differences in temperature and rainfall but patterns of mowing and grazing can also affect the species composition.
R35	E34a	Moist or wet mesotrophic to eutrophic hay meadow	Meadows of moist, sometimes seasonally flooded, nutrient-rich soils on floodplains and in brook-valleys throughout lowland and submontane Europe. Traditionally cut for hay, though sometimes also light grazed in late summer and autumn, the vegetation is often species-rich with a diverse associated invertebrate fauna attracted by the abundance of flowers. Often once part of wider agricultural landscapes with distinctive associated pastures, good examples of the habitat now often survive more fragmentarily and transitions to improved silage grassland on flood-protected land are widespread.
R36	E34b	Moist or wet mesotrophic to eutrophic pasture	Pastures of moist to wet, mesotrophic to eutrophic soils, generally inundated during winter and spring, on floodplains, lake shores and ditchesides throughout temperate Europe, sometimes with a brackish influence. Grazing is mostly by cattle which can strongly affect the nutrient status and compaction of the soil and plants tolerant of inundation and trampling dominate here with a paucity of attractive flowers and a poor associated invertebrate fauna.
R37	E35	Temperate and boreal moist or wet oligotrophic grassland	Meadows and pastures of less nutrient-rich soils, wet for much of the year, though not inundated by flood-waters and drying out in summer, especially in more continental regions. The soils may be somewhat acidic to base-rich, sometimes peaty above, and through the lowlands and sub-montane zones of Europe, they have been part of wider landscapes among fens and drier grasslands. Less productive than flood meadows, they

			are mown just once a year, and towards the west of the range, often just lightly grazed, but they can be species-rich with some characteristic and striking species.
R41	E41	Snow-bed vegetation	Vegetation on skeletal, sometimes humic, soils developed beneath late-lying snow patches in boreal and arctic mountains and the subarctic lowlands of Europe. Dominated by grasses, sedges, herbs and cryptogams, the species composition depends on regional climate, altitude, bedrock and soil type, and sometimes includes endemics, particular on high south European peaks.
R42	E43a	Boreal and arctic acidophilous alpine grassland	Boreal and arctic acidophilous alpine grasslands, dominated by low graminoids and herbs, characteristic of shallow mostly base-poor soils with thick late snow-lie, occurring through the high mountains of Fennoscandia, Iceland and Scotland.
R43	E43b	Temperate acidophilous alpine grassland	Grassland and dwarf chamaephyte vegetation on skeletal and shallow soils over predominantly siliceous bedrocks in the alpine belt throughout the temperate mountains of Europe, typical of the highest summits and ridges, often very exposed to strong winds and largely blown clear of snow in the winter.
R44	E44a	Arctic-alpine calcareous grassland	Grasslands on shallow, highly calcareous soils on limestone or dolomite slopes and ridges in the alpine or subalpine belts of the high mountains of the nemoral zone, being best developed in the Alps, but occurring also in the Carpathians and Pyrenees, with small fragmentary stands also in the Sudetes and in Scotland. Grasses and sedges dominate, along with numerous small herbs, the cover varying from sparse to complete according to the soil depth.
R45	E44b	Alpine and subalpine calcareous grassland of the Balkans and Apennines	Grass-dominated vegetation of base-rich soils in the high mountains in the Balkans and Apennines including both primary vegetation above the tree-line but also secondary grasslands maintained by grazing at lower altitudes.
R51	E52a	Thermophilous forest fringe of base-rich soils	Fringe communities on neutral to base-rich, only moderately nutrient-rich, soils in the transition zone between forests and open habitats or in similar situations alongside cliffs and on roadsides, occurring across large parts of lowland north-west Europe, but also extending into more continental regions where they fringe more open thermophilous forests, and into cooler montane levels to the south and south-east. Typically comprising half-shade plants, other species of neighbouring habitats can also find a place and, in calcareous landscapes, the vegetation can be more species-rich, harbouring a lot of rare

			and/or endangered species. vegetation. Dependent on grazing or mowing for preventing succession.
R52	E52b	Forest fringe of acidic nutrient-poor soils	Fringe vegetation of semi-shaded forest margins and similar situations on acidic, nutrient-poor soils in the cooler atlantic and subatlantic regions of Europe, becoming rare and more species-poor further east. It is generally dominated by bulky grasses and tall herbs, rather species-poor, and ultimately dependent on extensive grazing or occasional mowing to prevent encroachment by shrubs and trees that threaten denser shade.
R53	E52c	Macaronesian thermophilous forest fringe	Perennial herbaceous communities of the warm half-shade of forest fringes and clearings of Macaronesian laurel forests in the Canary Islands, Azores and Madeira. It is found as sunnier micro-sites in or along humid woodland edges but is dependent on forest litterfall producing somewhat mesotrophic conditions.
R54	E53	<i>Pteridium aquilinum</i> vegetation	Dense species-poor stands of bracken (<i>Pteridium aquilinum</i>), naturally a lowland European forest fern which, when not held in check by dense shade and lacking the traditional management of cutting and trampling by cattle, readily establishes itself as a dominant, spreading vigorously by rhizome extension and producing deep litter, a feature now of many pastoral landscapes less traditionally managed than before.
R55	E54	Lowland moist or wet tall-herb and fern fringe	Tall-herb and fern-dominated communities of moist, sometimes flooded, nutrient-rich soils in the lowlands and lower mountain areas of Europe, up to the subalpine zone, through the nemoral, boreal and submediterranean regions. The relatively species-rich vegetation may be found in river floodplains, along smaller watercourses, in the shade at the edge of forests, often as narrow strips, and, as secondary vegetation after the abandonment of pastures and especially meadows. The species composition is quite diverse, depending on the altitude, geographic distribution and location in the landscape.

R56	E55	Montane to subalpine moist or wet tall-herb and fern fringe	Tall forb and fern vegetation of moist, fertile soils in relatively cool and humid situations through high levels of the mountain ranges of Europe, having its optimum in the subalpine zone but also occurring in the arctic lowlands of Scandinavia. Typically found as strips along streams and on the edges of forests, in the shelter of large rocks, on mountain ledges and under scrub, sometimes also fringing snowbeds where it benefits from protection from winter frosts. The vegetation is often very rich in species and hosts many local and regional endemics, as well as widespread montane plants. Vulnerable to grazing by wild herbivores and stock, but often protected by its remoteness.
R57	E56	Herbaceous forest clearing vegetation	
R61	E61	Mediterranean inland salt steppe	Halophyte vegetation of inland situations in the Mediterranean region where the soils of flats or gentle hollows are permeated by waters laden with soluble salts from underlying substrates, and are then subject to extreme summer drought, with surface efflorescence of crystalline deposits. The vegetation can be rich in endemics, but the particular species composition depends on the regional climate and local soil conditions and there is often a distinctive seasonal pattern of growth and zonation around the hollows. In some regions, the vegetation has provided valuable grazing for sheep and goats in summer drought.
R62	E62	Continental inland salt steppe	Salt steppe of the Pannonian biogeographic region, characteristic of solonetz soils, saturated, even shallow flooded, by soluble carbonates in spring, then drying in summer with surface cracking. According to variations in salinity, slope and erosion by spring floods, the vegetation is a complex mosaic of grasslands and more halophytic herb communities, rich in endemic species and plant communities. Traditionally part of the pastoral landscape of older breeds of cattle.
R63	E63	Temperate inland salt marsh	Inland salt marsh and meadow of temperate and continental regions, characteristic of situations where fossil salt lies close to the surface or where relict sea water is present, resulting in brackish or saline ground and surface water. In more continental regions inland salt pans are more common, where the habitat is found in depressions within a matrix of salt steppes and as sub-halophytic meadows. Elsewhere in Europe, the habitat can be found in association with a variety of salty bedrocks and also on abandoned salt workings. The species composition is very varied according the regional climate and particular site conditions.

R64	E64	Semi-desert salt pan	Azonal, mosaic habitat of halophytic chenopod scrub and saline grassland in the semi-desert zones of south-eastern Europe. Vegetation is a combination of open annual and perennial halophytic communities and more closed grassland. Occurring on so-called solonchak soils, in poorly drained, saline or hypersaline depressions and on shores of rivers and lakes.
R65	E65	Continental subsaline alluvial pasture and meadow	Subsaline, perennial grassland of river valleys and other depressions in the steppe and semi-desert region. Dominated by perennial herbs, typically including <i>Glycyrrhiza glabra</i> . Occurring on terraces and elevations in river valleys where this grassland is flooded for a short period in some years and on non-alluvial soils that are temporarily wet.
R71	E71	Temperate wooded pasture and meadow	A very diverse landscape-scale habitat occurring across the nemoral zone of Europe where different traditions of grazing, mowing and silviculture have together created distinctive associations of trees growing among pastures and meadows. Such wood-pastures, wooded steppes, park meadows, grazed orchards, parklands and open hunting forests, variously managed for stock rearing, hay production, coppice and timber products, represent highly distinctive social and economic histories and can express great cultural traditions. Species-rich types occur, including contingents of epiphytic plants growing on veteran trees but, even where the components are more commonplace, the combinations of floristic and structural elements are striking.
R72	E72	Hemiboreal and boreal wooded pasture and meadow	Open wooded landscapes of the lowlands, foothills and mountains of the boreal zone, traditionally managed for grazing, hay-making and forest products, mainly by pollarding. Diverse very open canopies of broadleaved and coniferous trees, including veterans sometimes with rich epiphytic cryptogam floras, often with few or no associated shrubs, occur scattered over pasture and meadow vegetation. Long traditions of complex interactions and cultural associations make these landscapes both dynamic and distinctive.
R73	E73	Mediterranean wooded pasture and meadow	Open wooded landscapes created and maintained through combinations of traditional grazing, hay-making and tree management in the Mediterranean region. Variations in the local climate, topography and interventions, and the accumulation of long cultural traditions of use have resulted in a variety of highly distinctive types such as the dehesas of Spain and montados of Portugal. Typically the tree canopy is of evergreen broadleaved trees, variously with veterans, pollards or coppice, often with elements of sclerophyllous scrub beneath, and perennial and annual grasses and herbs in the field layer. In some traditions, there can even be small arable areas.

S11	F11	Shrub tundra	Tundra with a usually extensive cover of sub-shrubs or low shrubs over herbs, mosses and lichens on sporadically permafrost soils of the southern arctic and subarctic zones, often grazed into grassy mosaics.
S12	F12	Moss and lichen tundra	Tundra of the middle and northern high arctic zone where permafrost soils, often occurring in patterned ground, support a frequently sparse cover of mosses, lichens and low herbs.
S21	F21	Subarctic and alpine dwarf Salix scrub	Salix-dominated dwarf scrub, often with abundant bryophytes and lichens, on skeletal calcareous or siliceous soils in late snow beds with a short growing-season, occurring in the subarctic north of the forest zone and in the high mountains of nemoral Europe, increasingly local and fragmentary to the south.
S22	F22a	Alpine and subalpine ericoid heath	Dwarf-shrub vegetation dominated by ericoids and other woody species (not Juniperus or genistoids) occurring in high mountains throughout Europe, varying in dominants and associates according to regional climate, degree of exposure and snow lie, soil reaction, soil depth and moisture.
S23	F22b	Alpine and subalpine Juniperus scrub	Juniper-dominated vegetation of the montane to sub-alpine belts of European mountains, occurring as primary vegetation tolerant of both high exposure and snow-lie, but also a secondary derivative of deforested, long-grazed and eroded ground at high altitudes.
S24	F22c	Subalpine genistoid scrub of the Amphi-Adriatic region	Genistoid heath and scrub of high mountains in Italy and the Balkans, often in primary grassy mosaics at higher altitudes, but also extending below the timberline where wood-cutting and grazing open up the forest cover and sustain the vegetation as an anthropogenic replacement.
S25	F23	Subalpine and subarctic deciduous scrub	Low scrub, including krummholz, dominated by various deciduous trees and shrubs, on moist but free-draining, sometimes quite fertile, soils on high mountain slopes throughout Europe, often with long snow-lie and prone to natural disturbance due to avalanche and scree slides, after which it is well able to recover and recolonise. The associated flora can be rich in tall mountain herbs. It can also be found as a secondary succession stage in abandoned subalpine pastures and meadows.
S26	F24	Subalpine Pinus mugo scrub	Pinus mugo krummholz on mineral soils with long snow-lie above the tree line through the mountains of central and south-eastern Europe. Woody and herbaceous associates and the sometimes abundant bryophyte layer vary according to the base-richness of the soils and ground moisture.
S31	F31a	Lowland to montane temperate and submediterranean Juniperus scrub	Juniperus communis scrub on nutrient-poor sandy and calcareous soils through the temperate and submediterranean lowlands and foothills of Europe. The juniper can be very patchy in occurrence, often related to past land-use, and with a striking variety of growth forms, the associated flora being very diverse according

			to soil base-status, sharing much in common, where the scrub is open, with local calcicolous grasslands or heath.
S32	F31b	Temperate Rubus scrub	Low Rubus-dominated scrub, deciduous or sometimes evergreen, of successions and ecotones in a wide variety of semi-natural landscapes through the atlantic zone and elsewhere in sub-montane Europe where a locally moist climate prevails. Rubus is an enormously diverse genus of often apomictic and endemic taxa with associated floras related to soil base-status and moisture.
S33	F31c	Lowland to montane temperate and submediterranean genistoid scrub	Low scrub dominated by various woody legumes on mostly sharply-draining, nutrient-poor acidic soils through the temperate and submediterranean lowlands and mediterranean foothills of Europe. To the north the vegetation is usually found in successions or ecotones within pastoral landscapes and is often rather species-poor; further south, the scrub can occur as a more persistent or repeatedly renewed habitat among rocky or unstable hill-slopes with richer associated floras.
S34	F31d	Balkan-Anatolian submontane genistoid scrub	Open scrub, dominated by <i>Genista rumelica/lydia</i> endemic to steep rocky slopes and scree, and also degraded forest, in the lowlands and foothills of the south-eastern Balkans, on various soils but especially rich on limey substrates where calcicolous grassland species figure strongly among the associated flora.
S35	F31e	Temperate and submediterranean thorn scrub	Scrub dominated by a diversity of mostly thorny shrubs, small trees and saplings, in successions and ecotones on mesic soils in a wide variety of semi-natural landscapes through the temperate and submediterranean lowlands of Europe but sometimes extending to higher altitudes, as with the Balkan šibljak. The dominants and associated floras vary widely with differences in regional climate and soils.
S36	F31f	Low steppic scrub	Low scrub, dominated by various, often clonal, shrubs frequently forming patches in locally mesic and sheltered situations within the dry grasslands of the steppe zone of central and eastern Europe. It can form a persistent natural landscape element or develop after abandonment of pasturing.
S37	F31g	<i>Corylus avellana</i> scrub	Low scrub dominated by <i>Corylus avellana</i> , permanently maintained by exposure to winds and on shallow soils along the north Atlantic coast and locally on rocky slopes and cliffs through the continental region.
S38	F31h	Temperate forest clearing scrub	Often dense scrub of shrubs and small trees invading after natural or anthropogenic clearance in forests of the temperate zone.

S41	F41	Wet heath	Heath with prominent <i>Erica tetralix</i> on shallow, acid, nutrient-poor peats and peaty mineral soils, kept moist for much of the year and often seasonally waterlogged, through the atlantic and subatlantic lowlands and foothills of Europe. Typically occurring in wet depressions and seepage areas within dry heaths or as a marginal zone around bogs where drainage of deeper peats can increase its extent. In milder oceanic climates, other <i>Erica</i> and <i>Ulex</i> spp. occur in richer humid heath. Frequently influenced by grazing and sod-cutting.
S42	F42	Dry heath	Heath dominated by various ericaceous sub-shrubs on free-draining, nutrient-poor, acid sands and siliceous soils through the lowlands and foothills of western and central Europe, extending northwards in more oceanic situations and into continental regions at higher rainier altitudes. Very often influenced by grazing and burning and frequently a secondary vegetation type derived by clearance of acidophilous forest and maintained anthropogenically.
S43	F43	Macaronesian heath	Shrubby vegetation on thin soils in the Azores, Madeira and Canary Islands, colonising pyroclastic debris, lava, rock outcrops and landslips, sometimes cyclically renewed by further disturbance or seral to forest. Floristically diverse between and within the archipelagos.
S51	F51	Mediterranean maquis and arborescent matorral	Evergreen sclerophyllous or laurophyllous shrub vegetation forming a dense closed canopy, with or without low emergent trees, on a wide variety of substrates and soils through the thermo- to mesomediterranean belts. May be permanent primary vegetation on xeric sites but is usually derived by degradation of evergreen deciduous or coniferous forest and much influenced in structure and composition by grazing and fire.
S52	F53	Submediterranean pseudomaquis	Mixed deciduous and evergreen scrub of shallow, rocky, mostly calcareous soils in the lowlands and foothills of southern Europe, particularly the east. Usually derived by forest degradation and much affected in structure and composition by grazing, fire and logging.
S53	F54	<i>Spartium junceum</i> scrub	Scrub dominated by <i>Spartium junceum</i> , typical of disturbed, open, sunny situations on a wide variety of soils through the mediterranean and submediterranean zones, where its rapid establishment is favoured by post-fire seed germination, aggressive rooting, nitrogen-fixation and unpalatability.
S54	F55	Thermomediterranean arid scrub	Scrub with a usually low and rather open cover of shrubs with sub-shrubs, dwarf shrubs and herbs between, on dry soils of varied composition through the thermomediterranean zone, and of very diverse local composition. Primary and permanent in more arid and

			exposed situations, but can be successional to forest and often much affected by grazing.
S61	F61a	Western basiphilous garrigue	Sub-shrub vegetation dominated by nanophanerophytes and chamaephytes on thin, base-rich soils through the western thermo- to mesomediterranean belts, very diverse in composition with differences in local climate and soils. In rockier situations, it can be a permanent coloniser but is often derived from forest clearance and is much affected by grazing and fire.
S62	F61b	Western acidophilous garrigue	Sub-shrub vegetation dominated by nanophanerophytes on thin acidic soils, both hard silicate and soft sands, through the western thermo- to lower supramediterranean belts, very diverse in composition with differences in local climate and soils. In rockier situations, it can be a permanent coloniser but is often derived from forest clearance or abandonment of farm fields and is much affected by grazing and fire.
S63	F62	Eastern garrigue	Low, mostly evergreen sclerophyllous scrub on diverse soils through the eastern meso-, thermo- and occasionally supramediterranean belts, including around the Black Sea, where deciduous species can prevail. Derived by forest degradation and usually maintained by grazing and fire, their structure and composition vary greatly with local climate and human impacts.
S64	F65	Macaronesian garrigue	Low shrub vegetation with an open canopy, of the Canary Islands, Azores and Madeira.
S65	F67	Mediterranean gypsum scrub	Open chamaephyte scrub with a lichen crust and rainy-spring annual herb flora, on gypsum-rich substrates in areas with a dry to semi-arid mediterranean climate in the Iberian Peninsula. The extreme climatic and edaphic conditions maintain the habitat as naturally stable but it can bear some light grazing.
S66	F68a	Mediterranean halo-nitrophilous scrub	Perennial scrubby vegetation with nitrophilous and salt-tolerant associates in often artificially-disturbed places through the semi-arid thermo- and inframediterranean belts where the dry climate slows the decomposition of litter and aids precipitation of salt from the soil.
S67	F68b	Aralo-Caspian semi-desert	Zonal scrubby vegetation on loamy and subsaline soils of the semi-desert and deserts of the Caucasus foothills, south-eastern European Russia and Kazakhstan. The open vegetation is dominated by <i>Artemisia</i> spp. and other sub-halophytic shrubs (<i>Salsola</i> spp., <i>Petrosimonia</i> spp.). In the Caspian lowland this habitat reaches its north-western distribution limit, having its main distribution in the desert regions

			surrounding the Caspian Sea and Aral Lake, and further into Asia.
S68	F68c	Semi-desert sand dune with sparse scrub	Relatively open perennial vegetation of halophytic shrubs (<i>Salsola</i> , <i>Haloxylon</i> , <i>Artemisia</i> , <i>Tamarix</i>) and annuals on wind-blown drifting or stabilised dunes and overgrazed, sandy soils in the semi-desert region of the Caspian lowlands. The sandy soils are weakly developed or not at all.
S71	F71	Western Mediterranean spiny heath	Low scrub of often spiny, cushion-forming plants on thin soils on wind-exposed and spray-splashed tops of rocky cliffs on Corsica, Sardinia, Pantelleria and in the Gulf of Taranto.
S72	F73	Eastern Mediterranean spiny heath (<i>phrygana</i>)	Low scrub dominated by thorny hemispherical chamaephytes on various base-rich and acidic substrates in the thermo-, meso- and supramediterranean belts of mainland Greece, Anatolia, the Aegean and Ionian islands, Crete, Cyprus and the north-east Mediterranean coast, rarely also in Sicily. Can be of primary origin or result from clearance of evergreen sclerophyll forest.
S73	F74a	Western Mediterranean mountain hedgehog-heath	Heath of often spiny hedgehog sub-shrubs on base-rich and acidic soils in the cold and droughty upper supra- and oromediterranean belts of the Iberian Peninsula, historically sustaining transhumance pastoralism but often extending down from crests and steep slopes due to grazing and burning.
S74	F74b	Central Mediterranean mountain hedgehog-heath	Heath of often spiny hedgehog sub-shrubs on base-rich and acidic soils in windy and sunny situations in the supra- and oromediterranean belts of Corsica, Sardinia, Elba, Sicily and the southern mainland Mountains of Italy. Downslope expansion below the timberline can follow clearance and grazing.
S75	F74c	Eastern Mediterranean mountain hedgehog-heath	Heath of often spiny hedgehog sub-shrubs on mostly base-rich soils in dry mountains of the supra- and oromediterranean belts of the east Mediterranean. Downslope expansion below the timberline can follow clearance and grazing.
S76	F74d	Canarian mountain hedgehog-heath	Heath of hedgehog sub-shrubs on screes and volcanic soils in the subalpine semi-desert belt of Tenerife and La Palma.
S81	F81	Canarian xerophytic scrub	Open scrub of sclerophyllous shrubs and succulent herbs on rocky substrates with skeletal soils in the arid lowlands and on deeper soils in the moister foothills of the Canary Islands.
S82	F82	Madeiran xerophytic scrub	Diverse scrub of sclerophyllous shrubs, small trees and succulent herbs on usually thin soils of rocky outcrops, cliffs and abandoned fields in the arid lowlands of Madeira.

S91	F91	Temperate riparian scrub	Scrub of <i>Salix</i> spp. and <i>Myricaria germanica</i> developed on the mineral sediments of shoals and banks of lowland rivers through the temperate zone, re-establishing after seasonal flooding or succeeding to riparian and gallery forest where the sediments stabilise.
S92	F92	<i>Salix fen</i> scrub	Scrub dominated by various <i>Salix</i> spp. on peaty and mineral soils maintained in a permanently waterlogged state by high ground water in floodplain backwaters, around lakes and ponds, among mires and dunes, and in abandoned wet meadows and pastures, occurring through the lowlands of atlantic, boreal and continental Europe and extending into the mediterranean region at higher altitudes. Associated floras vary according to the base status of the ground waters and soils.
S93	F93	Mediterranean riparian scrub	Usually open scrub of <i>Tamarix</i> spp., <i>Nerium oleander</i> , <i>Vitex agnus-castus</i> and similar shrubs and small trees on seasonally droughted and irregularly flooded riverbeds, streamsides and depressions through the thermo- and mesomediterranean belts.
S94	F94	Semi-desert riparian scrub	Open scrub of <i>Tamarix</i> spp. and other shrubs and small trees occupying small or linear patches in sites with seasonally high groundwater table and saline soils in beds of temporary or permanent rivers, in pans or sometimes in human-affected sites like irrigation systems through the semi-desert and desert region.
T11	G11	Temperate <i>Salix</i> and <i>Populus</i> riparian forest	Willow- and poplar- (<i>Salix</i> - and <i>Populus</i> -) dominated forest of periodically-inundated terraces and shoals with deposition of nutrient-rich alluvium in the active floodplains of rivers through the lowlands of the boreal, nemoral, submediterranean and steppe zones.
T12	G12a	<i>Alnus glutinosa</i> - <i>Alnus incana</i> forest on riparian and mineral soils	Riparian and land-upheaval forests dominated by <i>Alnus glutinosa</i> , <i>A. incana</i> , and sometimes <i>Fraxinus excelsior</i> , typically without many softwood willows in the canopy and occurring throughout Europe along streams and small to medium rivers. The field layer can be quite species-rich, especially in moister situations, when more nutrient demanding herbs such as <i>Urtica dioica</i> and <i>Filipendula ulmaria</i> may be abundant. This habitat type also includes similar forests on flushed mineral soils
T13	G12b	Temperate hardwood riparian forest	Mixed broadleaved forests typical of less-frequently flooded, well-aerated mineral soils on floodplains of the middle and lower reaches of major European rivers. The canopy in high-forest stands can be very tall and multi-layered and is typically dominated by various mixtures of <i>Fraxinus excelsior</i> , <i>F. angustifolia</i> , <i>Alnus glutinosa</i> , <i>Populus alba</i> , <i>P. canescens</i> , <i>Quercus robur</i> , <i>Prunus padus</i> , <i>Ulmus glabra</i> , <i>U. minor</i> and <i>U. laevis</i> . There is typically an abundant and varied understorey, again often structurally complex, with a range of small trees, shrubs and lianes that are more typical of mesic

			deciduous forests (such as T1E <i>Carpinus</i> and <i>Quercus</i> mesic deciduous forest).
T14	G13	Mediterranean and Macaronesian riparian forest	Deciduous broadleaved forest, most commonly dominated by poplars (<i>Populus</i>), willows (<i>Salix</i>) or oriental plane (<i>Platanus orientalis</i>), on periodically flooded alluvium or gravel terraces and streambanks in humid localities in the mediterranean zone and Macaronesia. Also includes streamside forests with <i>Rhododendron ponticum</i> and birch (<i>Betula pendula</i> var. <i>fontqueri</i>) in Spain.
T15	G14	Broadleaved swamp forest on non-acid peat	Deciduous broadleaved forest, commonly dominated by alder (<i>Alnus glutinosa</i> , <i>A. incana</i>), oak (<i>Quercus robur</i>) or aspen (<i>Populus tremula</i>) on non-acid peat with ground water at or seasonally above the surface in swamps through the lowlands of the nemoral and boreal zones.
T16	G15	Broadleaved mire forest on acid peat	Deciduous broadleaved or mixed forest on acid peat on or around active bogs and poor fens with nutrient-poor ground waters occurring through the atlantic and boreal zones and locally, where ground conditions permit, in the continental zone. Usually dominated by birch (<i>Betula pubescens</i>).
T17	G16a	Fagus forest on non-acid soils	Beech- (<i>Fagus sylvatica</i> and <i>F. orientalis</i>) dominated forest of base-rich to neutral, oligotrophic to mesotrophic, mineral soils occurring through the atlantic and continental zones, and reaching into the alpine and, at higher altitudes, the submediterranean region. Associated trees, including evergreen conifers like fir (<i>Abies alba</i>) and spruce (<i>Picea abies</i>) which figures at the altitudinal limit, are always subordinate in cover and usually in height, though broadleaved associates are more extensive and diverse on richer soils and, like the usually sparse shrub layer, show regional climate-related variation. The field layer can be species-rich.
T18	G16b	Fagus forest on acid soils	Beech- (<i>Fagus sylvatica</i> and <i>F. orientalis</i>) dominated woodland of oligotrophic, base-poor mineral soils through the atlantic and continental zones, into the alpine and, at higher altitudes, the submediterranean zone. Associated broadleaved trees are few and always subordinate in cover, though oaks may be co-dominant. Evergreen conifers like fir (<i>Abies alba</i>) and, at the altitudinal limit, spruce (<i>Picea abies</i>) can figure as minority canopy components. The field layer is generally species-poor.

T19	G17a	Temperate and submediterranean thermophilous deciduous forest	These thermophilous broadleaved deciduous forests form a wide, but interrupted, belt across the submediterranean zone of Europe, with milder winters and warmer drought-prone summers than sustain the broadleaved temperate forests, but colder, intermittently frosty and snowy winters than are typical for the evergreen broadleaved forests and scrub of the Mediterranean. To the north, they tend to occupy lower altitude, drier and warmer sites, to the south, rainier sites at higher altitudes.
T1A	G17b	Mediterranean thermophilous deciduous forest	Mediterranean deciduous forests usually dominated by <i>Quercus ithaburensis</i> subsp. <i>macrolepis</i> forming open forest, the canopy may be pure or with other oaks. Stands are mostly on shallow soil at usually at altitudes less than 700 m.
T1B	G18	Acidophilous <i>Quercus</i> forest	Oak-dominated forest (mainly <i>Quercus robur</i> and <i>Q. petraea</i> but also other regional species) of impoverished acid soils through the atlantic and continental zones, where beech (<i>Fagus sylvatica</i>) is a potential competitor and extending northwards into the boreal zone where Scot's pine (<i>Pinus sylvestris</i>) increasingly figures in the canopy. Associated floras are generally rather poor but show some regional distinctiveness and towards the very humid western Atlantic seaboard have extraordinary richness of ferns and cryptogams.
T1C	G19a	Temperate and boreal mountain <i>Betula</i> and <i>Populus tremula</i> forest on mineral soils	Open, low canopy climax birch forests (<i>Betula pubescens</i> var. <i>glabrata</i> , <i>Betula pubescens</i> var. <i>pumila</i> , <i>Betula litwinowii</i>) with a heathy or herb-rich field layer in the boreal region, in temperate mountain ranges, and in the Caucasus.
T1D	G19b	Southern European mountain <i>Betula</i> and <i>Populus tremula</i> forest on mineral soils	Diverse climax forests dominated by birch (<i>Betula pendula</i> and closely related species) or aspen (<i>Populus tremula</i>) on usually acidic mineral soils in humid ravines and gorges in the sub-alpine Pyrenees, Corsica, the Apennines and Sicily, with associated floras characteristic of the local climatic conditions.
T1E	G1Aa	<i>Carpinus</i> and <i>Quercus</i> mesic deciduous forest	Deciduous broadleaved forests typical of somewhat to strongly impeded brown earth soils and gleys of quite low, moderate to high base-status and moderate to high nutrient content across the lowlands and foothills of the temperate zone of western, central and southern Europe, with local extensions into regions of submediterranean, Pannonian and boreal climate. Partially this includes alluvial <i>Quercus</i> / <i>Carpinus</i> -dominated forests in mountain valleys with infrequent inundation. The canopy is typically of mixed composition with oaks figuring prominently, notably <i>Quercus robur</i> and <i>Q. petraea</i> but with regional contributions from other oaks, along with <i>Carpinus betulus</i> , <i>Fraxinus excelsior</i> , <i>Acer pseudoplatanus</i> , <i>A. campestre</i> , <i>A. platanoides</i> , <i>Ulmus glabra</i> , <i>Tilia cordata</i> and <i>T. tomentosa</i> . Typically, <i>Fagus sylvatica</i> is at most

			a minor component. The canopy can have a complex, multi-layered structure including shrubs and lianes while the herb layer can be species-rich with much regional variation in composition.
T1F	G1Ab	Ravine forest	Forests on steep slopes, frequently in ravines, where deep, well drained and fertile soils develop which allow trees such as <i>Fraxinus excelsior</i> , <i>Acer pseudoplatanus</i> , <i>A. platanoides</i> , <i>Ulmus glabra</i> , <i>Tilia platyphyllos</i> and <i>Tilia cordata</i> to outcompete trees such as <i>Fagus sylvatica</i> and <i>Quercus</i> spp. The herb layer is dominated by luxuriant nitrophilous herbs such as <i>Urtica dioica</i> , <i>Aegopodium podagraria</i> and <i>Impatiens noli-tangere</i> , moisture-loving vernal plants like <i>Allium ursinum</i> and, on the typically base-rich soils, <i>Mercurialis perennis</i> , <i>Geranium robertianum</i> , <i>Brachypodium sylvaticum</i> and <i>Circaea lutetiana</i> . In the southern part of its distribution thermophilous species such as <i>Cotoneaster integerrimus</i> , <i>Sesleria caerulea</i> , <i>Athericum ramosum</i> and <i>Vincetoxicum hirundinaria</i> appear.
T1G	G1Ba	<i>Alnus cordata</i> forest	Broadleaved deciduous, non-riparian forests dominated by <i>Alnus cordata</i> , subendemic to Corsica and southern-Italy (Campania, Basilicata and Calabria Regions). The dominant species is a relict from the Tertiary period and is also present in other areas, where it is not considered native. <i>Alnus cordata</i> tends to form forests, either pure or mixed with other deciduous species such as <i>Quercus cerris</i> , <i>Castanea sativa</i> or, at higher altitudes, <i>Fagus sylvatica</i> , frequently on steep slopes and sides of deep valleys.
T1J		Deciduous self sown forest of non site-native trees	Unplanted stands dominated by non-native species such as <i>Robinia pseudoacacia</i> .
T1H	G1C	Broadleaved deciduous plantation of non site-native trees	Cultivated deciduous broadleaved tree formations planted for the production of wood, composed of exotic species or of native species out of their natural range.
T1K		Broadleaved deciduous plantation of site-native trees	Cultivated stands of broadleaved deciduous trees planted for the production of wood, composed of site-native broadleaved deciduous tree species.

T21	G21	Mediterranean evergreen Quercus forest	Forest dominated by evergreen broadleaved oaks (most widely <i>Quercus ilex</i>) with associated sclerophyllous and laurophyllous trees and shrubs in the summer-drought climate of the mediterranean lowlands and foothills. The tree canopy is often low and much modified, with widespread transitions to scrubby maquis/matorral and open dehesa/montado wood pasture.
T22	G22	Mainland laurophyllous forest	Evergreen laurophyllous short-stature woodland, often dominant by bay (<i>Laurus nobilis</i>), firetree (<i>Morella faya</i>) and Portugal laurel (<i>Prunus lusitanica</i> subsp. <i>lusitanica</i>) in warm temperate oceanic and hyper-humid situations, now surviving as small relics in sheltered situations like ravines along the Atlantic coast of Portugal and Spain and in Sardinia, southern Italy and Sicily. Typically species-poor with an associated flora similar to T21.
T23	G23	Macaronesian laurophyllous forest	Evergreen laurophyllous forest on deep soils in the hyper-humid, frost-free, fog belt of the Macaronesian hills. The tree and shrub canopy is very diverse and rich in endemics, with striking differences related to climatic conditions across the different island groups, local topography and long isolation of the floras.
T24	G24	<i>Olea europaea</i> - <i>Ceratonia siliqua</i> forest	Olive (<i>Olea europea</i>), carob (<i>Ceratonia siliqua</i>) and mastic (<i>Pistacia lentiscus</i>) forest with a tall, closed tree canopy in the drought-prone lowlands and foothills of the Mediterranean and Macaronesia.
T25	G25a	Phoenix theophrasti vegetation	Sparse groves with the palm tree <i>Phoenix theophrasti</i> , found on the island of Crete and south-western Anatolia. The habitat may be either riparian (with the palm forming temporarily inundated gallery forest along permanent fresh or brackish waters), or related to seasonally or episodically flooded coastal valleys.
T26	G25b	Phoenix canariensis vegetation	Sparse <i>Phoenix canariensis</i> groves (palmares) of colluvial deposits, mostly on flat midslope sites or at the base of irregular temporary streams. Endemic to the Canary Islands, they are dependent on brief, temporary water-tables present in sporadic torrential flows during the winter. Thus, they are azonal in the dry to arid bioclimatic belts of the infra-thermomediterranean where the zonal.
T27	G26	<i>Ilex aquifolium</i> forest	Holly (<i>Ilex aquifolium</i>) dominated forest occurring in scattered localities across Europe and probably an arborescent survival of T3D <i>Taxus</i> forest at middle altitudes in the Mediterranean zone and of T17 and T18 beech forests and T1B oak forests in the nemoral lowlands.
T28	G27	Macaronesian heathy forest	Small-stature woodland variously dominated by arborescent ericoids, strawberry tree (<i>Arbutus canariensis</i>) and Canarian holly (<i>Ilex canariensis</i>) in situations that range from cold and hyper-humid slopes and exposed fog-bound outcrops to sub-humid and dry foothills of Madeira and the Canaries.

T29	G28	Broadleaved evergreen plantation of non site-native trees	Cultivated evergreen broad-leaved tree formations planted for the production of wood, composed of exotic species, of native species out of their natural range, or of native species planted in clearly unnatural stands, often as monocultures.
T2A		Broadleaved evergreen plantation of site-native trees	Cultivated stands of broadleaved evergreen trees planted for the production of wood, composed of site-native broadleaved evergreen tree species.
T31	G31a	Temperate mountain Picea forest	Evergreen coniferous forest dominated by spruce (<i>Picea abies</i> and, in the Dinaric mountains, relict <i>P. omorika</i>), often with some fir (<i>Abies alba</i>) on usually acidic, even very oligotrophic, wet, cold or rocky soils in the montane and sub-alpine belts of nemoral mountains.
T32	G31b	Temperate mountain Abies forest	forests of fir (<i>Abies alba</i>) in nemoral mountains, often with beech (<i>Fagus sylvatica</i>) towards the sub-montane limit, spruce (<i>Picea abies</i>) where site conditions are harsher at higher altitudes. On generally acidic soils though extending on to more base-rich and mesotrophic soils where distinctive contingents of herbs augment or replace the usually heathy field layer.
T33	G31c	Mediterranean mountain Abies forest	Evergreen coniferous forests of more sunless or fog-bound slopes and gullies in the lower to mid altitudinal belts of mediterranean mountains where firs of very limited distribution dominate in highly distinctive relic stands: Spanish fir (<i>A. pinsapo</i>), Greek fir (<i>A. cephalonica</i>), King Boris's fir (<i>A. borisii-regis</i>), Apennine or Sicilian stands of silver fir (<i>A. alba</i>) and Sicilian fir (<i>A. nebrodensis</i>).
T34	G32	Temperate subalpine Larix, Pinus cembra and Pinus uncinata forest	Coniferous, in part deciduous, forest of larch (<i>Larix decidua</i>) or Arolla pine (<i>Pinus cembra</i>) in the mid sub-alpine belt of temperate mountains in the central Alps and Carpathians with long but shallow snow-lie and a short growing season. Dwarf mountain pine (<i>P. mugo</i>), spruce (<i>Picea abies</i>), fir (<i>Abies alba</i>), rhododendrons and other sub-shrubs are never more than subordinate but various whitebeams (<i>Sorbus</i> spp.) are characteristic associates.
T35	G34a	Temperate continental Pinus sylvestris forest	Forests dominated by pine (<i>Pinus sylvestris</i>), often with some birch (<i>Betula pendula</i> and <i>B. pubescens</i>), aspen (<i>Populus tremula</i>), juniper (<i>Juniperus communis</i>) and various whitebeams (<i>Sorbus</i> spp.), on acidic to base-rich soils through the north nemoral zone and into the hemi-boreal.
T36	G34b	Temperate and submediterranean montane Pinus sylvestris-Pinus nigra forest	Evergreen coniferous forests, generally dominated by either Scot's pine (<i>Pinus sylvestris</i>) or black pine (<i>P. nigra</i> and, towards the southern limit, various subspecies), less commonly with some spruce (<i>Picea abies</i>) and deciduous associates, often in isolated and small stands on base-rich soils through the mountains of the south temperate and sub-mediterranean zones.

T37	G34c	Mediterranean montane Pinus sylvestris-Pinus nigra forest	Evergreen coniferous forest of more drought-prone situations at scattered localities through the mountains of the mediterranean zone, dominated by black pine (Pinus nigra) and, except on Mediterranean islands, sometimes with subordinate Scot's pine (Pinus sylvestris), both trees often occurring as vicariant forms in different localities.
T38	G36	Mediterranean and Balkan subalpine Pinus heldreichii-Pinus peuce forest	Evergreen coniferous forest of timberlines in the mountains of the Balkans and southern Italy, dominated by Bosnian pine (Pinus heldreichii) on base-rich soils in more sunny and drought-prone situations or by Macedonian pine (P. peuce) on siliceous soils.
T39	G37	Mediterranean lowland to submontane Pinus forest	Evergreen coniferous forest dominated by various thermophilous pines: maritime pine (Pinus pinaster in western mediterranean and warm atlantic zones), Aleppo pine (P. halepensis) and stone pine (P. pinea all around the southern European coast) and Aegean pine (P. brutia in Greece and Anatolia), the first three often favouring unstable substrates or pre-climax situations.
T3A	G38	Pinus canariensis forest	Forest of endemic Canarian pine (Pinus canariensis) occurring mostly at high altitudes in dry sunny situations above the fog belt, locally on foothill rock outcrops and old lava flows, in the western Canary Islands.
T3B	G34d	Mediterranean montane Cedrus forest	Forests dominated by Cedrus atlantica or C. libani found on mountains of North Africa, Lebanon, Syria, Asiatic Turkey and Cyprus.
T3C	G39a	Taxus baccata forest	Evergreen woodlands overwhelmingly dominated by yew (Taxus baccata), sometimes with holly (Ilex aquifolium), whitebeam (Sorbus aria) and box (Buxus sempervirens), maybe in halted successions or as senescent survivals, occurring very locally on base-rich soils in the mediterranean zone and in the British Isles.
T3D	G39b	Mediterranean Cupressaceae forest	Evergreen forests of cypress (Cupressus sempervirens), junipers (Juniperus drupacea, J. excelsa, J. foetidissima, J. thurifera) or alerce (Tetraclinis articulata) with a usually open canopy with scrubby understorey and grassy field layer, on shallow, usually base-rich soils, in dry rocky situations scattered through the mediterranean zone.
T3E	G39c	Macaronesian Juniperus forest	Evergreen forests of endemic macaronesian junipers (Juniperus turbinata subsp. canariensis, J. cedrus subsp. cedrus and subsp. maderensis, J. brevifolia) in diverse habitats as sometimes very small isolated populations, each with distinctive associated floras.
T3F	G3A	Dark taiga	Forest naturally dominated by spruce (Picea abies, P. obovata), Siberian fir (Abies sibirica) or Siberian pine (Pinus sibirica) on more mesic soils through the north-eastern continental and boreal regions, often with a subordinate deciduous broadleaf component (e.g. Betula pendula and B. pubescens) in the canopy and understorey and varied field-layer with significant participation of dwarf shrubs, bryophytes and lichens.

T3G	G3B	Pinus sylvestris light taiga	Forest naturally dominated by Scot's pine (<i>Pinus sylvestris</i>) but often with some birch (<i>Betula pendula</i> and <i>B. pubescens</i>) on lithomorphic and podzolized soils of dry and barren situations through the north-eastern continental and boreal regions with a generally heathy field layer but, when on eskers, a specialised herb flora.
T3H	G3C	Larix light taiga	Deciduous coniferous woodland of Siberian larch (<i>Larix sibirica</i>) in the boreal zone of north-eastern Europe and western Siberia.
T3J	G3Da	Pinus and Larix mire forest	Open woodland dominated by pine (<i>Pinus sylvestris</i> , <i>P. rotundata</i>) or larch (<i>Larix sibirica</i> , <i>L. decidua</i>) on acid peat or around active bogs and poor fens with nutrient-poor ground waters occurring through the boreal zone and locally, where ground conditions permit, in the continental zone.
T3K	G3Db	Picea mire forest	Open woodland dominated by spruce (<i>Picea abies</i> , <i>P. obovata</i>) on acid peat or around active bogs and poor fens with nutrient-poor ground waters occurring through the boreal zone and locally, where ground conditions permit, in the continental zone.
T3L		Coniferous self sown forest of non site-native trees	Spontaneously established forests composed of exotic conifer species or of European conifers out of their natural range.
T3M	G3F1	Coniferous plantation of non site-native trees	Cultivated stands of coniferous trees planted for the production of wood, composed of exotic conifer species or of European conifers out of their natural range.
T3N	G3F2	Coniferous plantation of site-native trees	Cultivated stands of coniferous trees planted for the production of wood, composed of site-native conifer species.
T41	G56	Early-stage natural and semi-natural forest and regrowth	Early stages of forest regrowth or newly-colonizing forest composed predominantly of young individuals of high-forest species that are still less than 5 m in height. Includes young native forest replanted with indigenous trees and naturally-colonizing stands of non-native trees.
T42	G57	Coppice and early stage plantations	Forest treated as coppice without standards. Plantations with a dominant canopy of young trees that are still less than 5 m in height. Plantations of dwarf trees or shrubs cultivated for wood or small-tree production, with a regular whole-plant harvesting regime, including short-rotation <i>Salix</i> beds for biomass production, Christmas tree crops, tree nurseries.
T43	G58	Recently felled areas	Land that has recently supported deciduous or coniferous forest after the trees have been clear-felled or burned. Includes forest with successional vegetation dominated by shrubs provided that these will soon be overtopped by a tree canopy. Clearings with herbaceous vegetation are considered part of R57 Herbaceous forest clearing vegetation although that may be a temporary stage before tree cover returns.

Appendix C: Crosswalk between the revised EUNIS classification for grassland habitat types (Group E), heathland, scrub and tundra habitat types (Group F), and forest habitat types (Group G) and *EuroVegChecklist 2016*

R11 - [E11a] Pannonian and Pontic sandy steppe

- <> COR-01B - Koelerion glaucae Volk 1931
- < COR-02A - Festucion vaginatae de Soó 1929
- < COR-02B - Festucion beckeri Vicherek 1972
- <> SED-04G - Sileno conicae-Cerastion semidecandri Korneck 1974
- <> SED-04H - Bassio laniflorae-Bromion tectorum Borhidi 1996 nom. conserv. propos.

R12 - [E11b] Cryptogam- and annual-dominated vegetation on siliceous rock outcrops

- < SED-01B - Rumici acetosellae-Agrostion borealis Knapp 1964
- < SED-02A - Sedo albi-Veronicion dillenii Korneck 1974
- < SED-02B - Sedo-Scleranthion Br.-Bl. et Richard 1950
- < SED-02C - Sedion anglici Br.-Bl. in Br.-Bl. et Tx. 1952
- < SED-02D - Sedion pyrenaici Tx. in Rivas-Mart. et al. 2011
- < SED-02E - Hyperico perforati-Scleranthion perennis Moravec 1967
- < SED-02F - Scabioso-Trifolion dalmatici Horvatić et N. Randelović in N. Randelović 1977
- < SED-02G - Poo bulbosae-Stipion graniticola Vynokurov 2014
- <> SED-03A - Thero-Airion Tx. ex Oberd. 1957

R13 - [E11d] Cryptogam- and annual-dominated vegetation on calcareous and ultramafic rock outcrops

- < SED-01A - Veronico-Poion glaucae Nordhagen 1943
- < SED-04A - Alysso alyssoidis-Sedion Oberd. et T. Müller in T. Müller 1961
- < SED-04B - Tortello tortuosae-Sedion albi Hallberg ex Dengler et Löbel 2006
- < SED-04C - Sedion micrantho-sediformis Rivas-Mart., P. Sánchez et Alcaraz ex P. Sánchez et Alcaraz 1993
- <> SED-04D - Armerion juncea Br.-Bl. ex Br.-Bl. et al. 1952
- < SED-04E - Valerianion tuberosae Guinochet 1975
- < SED-04F - Aethionemion saxatilis Bergmeier et al. 2009
- <> SED-04G - Sileno conicae-Cerastion semidecandri Korneck 1974
- <> SED-04H - Bassio laniflorae-Bromion tectorum Borhidi 1996 nom. conserv. propos.

R14 - [E11e] Perennial rocky grassland of the Italian Peninsula

- < ONO-03A - Alysson bertolonii E. Pignatti et Pignatti 1977
- < ONO-03B - Cytiso spinescentis-Saturejion montanae Pirone et Tammaro 1997
- < ONO-03C - Cytiso spinescentis-Bromion erecti Bonin 1978
- < ONO-03D - Seslerio nitidae-Caricion macrolepidis Ubaldi 1997

R15 - [E11f] Continental dry rocky steppic grassland and dwarf scrub on chalk outcrops

- < FES-06A - *Artemisio hololeucae-Hyssopion cretaei* Romashchenko et al. 1996
- < FES-06B - *Euphorbio cretophilae-Thymion cretaei* Didukh 1989

R16 - [E11g] Perennial rocky grassland of Central and South-Eastern Europe

- < FES-05A - *Alyso-Festucion pallentis* Moravec in Holub et al. 1967
- < FES-05B - *Asplenio-Festucion pallentis* Zólyomi 1936 corr. 1966
- < FES-05C - *Bromo pannonici-Festucion csikhegyensis* Zólyomi 1966 corr. Mucina in Di Pietro et al. 2015
- < FES-05D - *Chrysopogono-Festucion dalmatica* Borhidi 1996
- < FES-05E - *Saturejion montanae* Horvat in Horvat et al. 1974
- < FES-05F - *Pimpinello-Thymion zygoidei* Dihoru et Donița 1970
- < FES-05G - *Potentillo arenariae-Linion czerniaevii* Krasova et Smetana 1999
- < FES-05H - *Androsaco tauricae-Caricion humilis* Didukh in Mucina et Didukh 2014
- < FES-05I - *Diantho lumnitzeri-Seslerion* (Soó 1971) Chytrý et Mucina in Mucina et Kolbek 1993
- < FES-05J - *Seslerion rigida* Zólyomi 1936
- < FES-10A - *Saturejo-Thymion* Micevski 1971

R17 - [E11h] Heavy-metal dry grassland of the Balkans

- < FES-11A - *Polygonion albanicae* Ritter-Studnička 1970
- < FES-11B - *Centaureo-Bromion fibrosi* Blečić et al. 1969
- < FES-11C - *Alysson heldreichii* Bergmeier et al. 2009

R18 - [E11i] Perennial rocky calcareous grassland of subatlantic-submediterranean Europe

- < FES-08A - *Xerobromion erecti* Zoller 1954
- < FES-08B - *Festuco-Bromion* Barbero et Loisel 1971

R19 - [E11j] Dry steppic submediterranean pasture of the Amphi-Adriatic region

- < FES-09A - *Chrysopogono grylli-Koelerion splendidis* Horvatić 1973
- < FES-09B - *Saturejion subspicatae* Tomić-Stanković 1970
- < FES-09C - *Centaureion dichroanthae* Pignatti 1952
- < FES-09D - *Scorzonerion villosae* Horvatić ex Kovačević 1959
- < FES-09E - *Hippocrepido glaucae-Stipion austroitalicae* Forte et Terzi in Forte et al. 2005

R1A - [E12a] Semi-dry perennial calcareous grassland (meadow steppe)

- < FES-01A - *Bromion erecti* Koch 1926
- < FES-01B - *Cirsio-Brachypodion pinnati* Hadač et Klika in Klika et Hadač 1944
- < FES-01C - *Filipendulo vulgaris-Helictotrichion pratensis* Dengler et Löbel in Dengler et al. 2003

- < FES-01D - Gentianello amarellae-Helictotrichion pratensis Royer ex Dengler in Mucina et al. 2009
- < FES-01E - Potentillo-Brachypodion pinnati Br.-Bl. 1967
- < FES-01F - Polygalo mediterraneae-Bromion erecti (Biondi et al. 2005) Di Pietro in Di Pietro et al. 2015
- < FES-01G - Chrysopogono-Danthonion calycinae Kojić 1959
- <> FES-02B - Koelerio-Phleion phleoidis Korneck 1974
- < FES-07A - Brachypodion phoenicoidis Br.-Bl. ex Molinier 1934
- < FES-07B - Artemisio albae-Dichanthion ischaemi X. Font ex Rivas-Mart. et M.L. López in Rivas-Mart. et al. 2002
- < FES-07C - Diplachnion serotinae Br.-Bl. 1961

R1B - [E12b] Continental dry grassland (true steppe)

- <> ART-02A - Bassio-Artemision austriacae Solomeshch in A. Ishbirdin et al. 1988
- <> ART-03C - Artemisio marschallianae-Elytrigion intermedii Korotchenko et Didukh 1997
- < FES-02A - Festucion valesiacaе Klika 1931 nom. conserv. propos.
- <> FES-02B - Koelerio-Phleion phleoidis Korneck 1974
- < FES-02C - Stipion lessingianaе Soó 1947
- < FES-02D - Centaureo carbonatae-Koelerion talievii Romashchenko et al. 1996
- < FES-02E - Adonido vernalis-Stipion tirsae Didukh in Didukh et Mucina 2014
- < FES-02F - Veronico multifidaе-Stipion ponticae Didukh in Didukh et Mucina 2014
- < FES-02G - Artemisio tauricae-Festucion Korzhenevsky et Klyukin 1991
- < FES-02H - Agropyrion pectinati Golub et Uzhametskaya 1991
- < FES-02I - Artemisio-Kochion Soó 1964
- < FES-02J - Stipo-Poion xerophilae Br.-Bl. et Richard 1950
- < FES-03A - Helictotricho desertorum-Stipion rubentis Toman 1969
- < FES-03B - Scorzonero austriacae-Koelerion sclerophyllae Solomeshch et al. 1994
- < FES-03C - Lathyro pallescentis-Helictotrichion schelliani Solomeshch et al. 1994
- < FES-03D - Aconopogonion alpini Yamalov et al. 2009 nom. inval.
- < FES-03E - Centaureion sumensis Golub et al. 1995

R1C - [E12c] Desert steppe

- < FES-04A - Tanaceto achilleifolii-Stipion lessingianaе Royer ex Lysenko et Mucina all. nov.
- < FES-04B - Stipion korshinskyi Toman 1969
- < FES-04C - Caricion stenophyllae Golub et Saveleva 1991

R1D - [E13a] Mediterranean closely grazed dry grassland

- < BUL-01A - Trifolio subterranei-Periballion minutae Rivas Goday 1964
- < BUL-01B - Plantaginion serrariae Galán de Mera et al. 2000
- < BUL-01C - Poo bulbosae-Astragalion sesamei Rivas Goday et Ladero 1970

- < BUL-01D - *Ornithogalo corsici-Trifolion subterranei* (Farris et al. 2013) Farris & Mucina stat. nov.
- < BUL-01E - *Plantaginion cupanii* S. Brullo et Grillo 1978
- < BUL-01F - *Romuleion* Oberd. 1954

R1E - [E13b] Mediterranean tall perennial dry grassland

- < LYG-01A - *Phlomidio lychnitis-Brachypodion retusi* Mateo ex Theurillat et Mucina all. nov.
- < LYG-01B - *Trisetio velutini-Brachypodion boissieri* Rivas-Mart. et al. 2002
- < LYG-01C - *Festucion scariosae* Martínez-Parras et al. 1984
- < LYG-01D - *Stipion parviflorae* De la Torre et al. 1996
- < LYG-01E - *Leontodonto tuberosi-Bellion sylvestris* Biondi et al. 2001
- < LYG-01F - *Reichardio maritimae-Dactylidion hispanicae* Biondi et al. 2001
- < LYG-01G - *Cymbopogono-Brachypodion ramosi* Horvatić 1963
- < LYG-01H - *Hyparrhenion hirtae* Br.-Bl. et al. 1956
- < LYG-02A - *Agropyro pectinati-Lygeion sparti* Br.-Bl. et O. de Bolòs 1958 corr. Rivas-Mart. et al. 1999
- < LYG-02B - *Stipion tenacissimae* Rivas-Mart. 1984
- < LYG-02C - *Moricandio-Lygeion sparti* S. Brullo et al. 1990
- < LYG-02D - *Scorzonero creticae-Lygeion sparti* S. Brullo et al. 2002

R1F - [E13c] Mediterranean annual-rich dry grassland

- < TRA-01A - *Trachynion distachyae* Rivas-Mart. 1978
- < TRA-01B - *Stipion retortae* O. de Bolòs 1957
- <> TRA-01C - *Sedo-Ctenopsion gypsophilae* Rivas Goday et Rivas-Mart. ex Izco 1974
- < TRA-01D - *Omphalodion commutatae* Rivas-Mart., Izco et M. Costa ex Izco 1976 corr. Pérez Raya et al. 1991
- <> TRA-02A - *Vulpio ciliatae-Crepidion neglectae* Poldini 1989
- < TRA-02B - *Vulpion ligusticae* Aubert et Loisel 1971
- < TRA-02C - *Onobrychido-Ptilostemonion stellati* S. Brullo et al. 2001
- < TRA-02D - *Xeranthemion annui* Oberd. 1954
- < TRA-02E - *Diantho humilis-Velezion rigidae* Korzhenevskii et Kliukin ex Didukh et Mucina 2014
- < TRA-03A - *Plantagini-Catapodion marini* S. Brullo 1985
- < TRA-03B - *Dauco-Catananchion luteae* S. Brullo 1985

R1G - [E15a] Iberian oromediterranean siliceous dry grassland

- < IND-01A - *Teesdaliopsio confertae-Luzulion caespitosae* Rivas-Mart. 1987
- < IND-01B - *Jasionion carpetanae* González-Albo 1941
- < IND-01C - *Ptilotrichion purpurei* Quézel 1953
- < IND-02A - *Hieracio castellani-Plantaginion radicatae* Rivas-Mart. et Cantó 1987
- < IND-02B - *Armerion eriophyllae* Pinto da Silva 1970

- < IND-02C - *Thymion serpylloidis* Rivas Goday et Rivas-Mart. in Rivas-Mart. 1965

R1H - [E15b] Iberian oromediterranean basiphilous dry grassland

- < ONO-01A - *Festucion burnatii* Rivas Goday et Rivas-Mart. ex Mayor et al. 1973
- < ONO-01B - *Sideritido fontquerianae-Arenarion microphyllae* Rivas Goday et Borja 1961 corr. Rivas-Mart. et al. 2002
- < ONO-02A - *Ononidion striatae* Br.-Bl. et Susplugas 1937
- < ONO-02B - *Ononidion cristatae* Royer 1991
- < ONO-02C - *Festucion scopariae* Br.-Bl. 1948
- < ONO-02D - *Avenion sempervirentis* Barbero 1968

R1J - [E15c] Cyrno-Sardean oromediterranean siliceous dry grassland

- < PIL-01A - *Sesamoido pygmaeae-Poion violaceae* Gamisans 1975

R1K - [E15d] Greek and Anatolian oromediterranean dry grassland

- < ANA-01A - *Trifolion parnassii* Quézel 1964

R1L - [E15e] Madeiran oromediterranean siliceous dry grassland

- < SAC-02A - *Deschampsio maderensis-Parafestucion albidae* Capelo et al. 2000

R1M - [E17] Lowland to montane, dry to mesic grassland usually dominated by *Nardus stricta*

- < NAR-01A - *Equiseto-Galion borealis* Tx. in Tx. et Böttcher 1969
- < NAR-01B - *Violion caninae* Schwickerath 1944
- < NAR-01C - *Nardo-Juncion squarrosi* (Oberd. 1957) Passarge 1964
- < NAR-01D - *Nardo-Agrostion tenuis* Sillinger 1933
- < NAR-01E - *Campanulo-Nardion* Rivas-Mart. 1964
- < NAR-01F - *Nardo-Agrostion caninae* Cortini-Pedrotti et al. 1973
- < NAR-01G - *Cirsio vallis-demoni-Nardion* Giacomini et Gentile ex Di Pietro et Theurillat in Di Pietro et al. 2015
- < NAR-01H - *Achilleo-Arnicion* Horvat et Pawłowski in Horvat 1960

R1N - [E18] Open Iberian supramediterranean dry acid and neutral grassland

- <> SAC-01A - *Festuco amplae-Agrostion castellanae* Theurillat in Di Pietro et al. 2015
- <> SAC-01B - *Festucion merinoi* Rivas-Mart. et Sánchez-Mata in Rivas-Mart. et al. 1986 corr. Rivas-Mart. et Sánchez-Mata in Rivas-Mart. et al. 2002
- <> SAC-01C - *Agrostio castellanae-Stipion giganteae* Rivas Goday ex Rivas-Mart. et Fernández-González 1991

R1P - [E19a] Oceanic to subcontinental inland sand grassland on dry acid and neutral soils

- < COR-01C - *Sedo-Cerastion arvensis* Sissingh et Tideman 1960
- < COR-01D - *Armerion elongatae* Pötsch 1962

- <> SED-03A - Thero-Airion Tx. ex Oberd. 1957
- <> SED-04D - Armerion juncea Br.-Bl. ex Br.-Bl. et al. 1952
- <> SED-04G - Sileno conicae-Cerastion semidecandri Korneck 1974

R1Q - [E19b] Inland sanddrift and dune with siliceous grassland

- <> COR-01A - Corynephorion canescentis Klika 1931
- <> COR-01B - Koelerion glaucae Volk 1931
- <> SED-03A - Thero-Airion Tx. ex Oberd. 1957

R1R - [E1A] Mediterranean to Atlantic open, dry, acid and neutral grassland

- < SAC-03A - Armerio rumelicae-Potentillion Mitsevski 1978
- < TUB-01A - Helianthemion guttati Br.-Bl. in Br.-Bl. et al. 1940
- < TUB-01B - Crassulo tillaeae-Sedion caespitosi de Foucault 1999
- < TUB-01C - Molinerion laevis Br.-Bl. et al. 1952
- < TUB-01D - Sedion pedicellato-andegavensis Rivas-Mart. et al. 1986
- < TUB-01E - Trifolion cherleri Micevski 1972
- < TUB-01F - Sclerantho-Myositidion incrassatae S. Brullo et al. 2001
- < TUB-01G - Thymion micantis J.C. Costa et al. 2005
- < TUB-01H - Ornithopodo pinnati-Gaudinon coarctatae Fernández Prieto et Aguiar in Fernández Prieto et al. 2012
- <> TUB-03A - Anthyllido hamosae-Malcolmion lacerae Rivas Goday 1958
- < TUB-03B - Corynephoron articulati-Malcolmion patulae Rivas Goday 1958
- < TUB-03C - Corynephorion maritimi Costa, Pinto-Gomes, Neto et Rivas-Mart. in J.C. Costa et al. 2012
- < TUB-03D - Ormenido multicaulis-Malcolmion broussonetii Br.-Bl. in Br.-Bl. et al. 1940
- < TUB-03E - Filagini asterisciflorae-Linarion humilis Minissale et Sciandrello 2015

R1S - [E1B] Heavy-metal grassland in Western and Central Europe

- < THL-10A - Thlaspiion calaminarii Ernst 1965
- < THL-10B - Armerion halleri Ernst 1965

R1T - [E1F] Azorean open, dry, acid to neutral grassland

- < TOL-01A - Festucion francoi Lüpnitz 1976 corr. Fernández Prieto, Aguiar, J.C. Costa, Lousã et Rivas-Mart. in Fernández Prieto et al. 2012
- < TOL-01B - Tolpido succulentae-Agrostion congestiflorae Aguiar et Fernández Prieto in Fernández Prieto et al. 2012

R21 - [E21] Mesic permanent pasture of lowlands and mountains

- <> MOL-01C - Cynosurion cristati Tx. 1947
- < MOL-03B - Poion alpinae Gams ex Oberd. 1950
- < MOL-03C - Poion supinae Rivas-Mart. et Géhu 1978

R22 - [E22] Low and medium altitude hay meadow

- < MOL-01A - Arrhenatherion elatioris Luquet 1926
- <> MOL-01C - Cynosurion cristati Tx. 1947
- < MOL-01E - Brachypodio-Centaureion nemoralis Br.-Bl. 1967
- < MOL-01F - Salvia pratensis-Dactylidion glomeratae Ubaldi et al. in Ubaldi 2003
- < MOL-01G - Rumicion thyrsoflori Micevski 1994
- < MOL-01H - Trifolium pratensis-Brizion elatioris Didukh et Kuzemko 2009

R23 - [E23] Mountain hay meadow

- < MOL-01B - Phyteumato-Trisetion Ellmauer et Mucina 1993
- < MOL-03A - Trisetum flavescens-Polygonum bistorta Br.-Bl. et Tx. ex Marschall 1947
- < MOL-03D - Violion cornutae Nègre 1972
- < MOL-03E - Panicum serbicum Lakušić 1966
- < MOL-03F - Helictotricho compressi-Bistortion officinalis Didukh et Kuzemko 2009
- < MOL-03G - Astragalion maximae Korotkov 2013
- < MOL-04A - Polygonum krascheninnikovii Kashapov 1985

R24 - [E24] Iberian summer pasture (vallicar)

- <> SAC-01A - Festuca amplae-Agrostion castellanae Theurillat in Di Pietro et al. 2015
- <> SAC-01B - Festucion merinorum Rivas-Mart. et Sánchez-Mata in Rivas-Mart. et al. 1986 corr. Rivas-Mart. et Sánchez-Mata in Rivas-Mart. et al. 2002
- <> SAC-01C - Agrostion castellanae-Stipion giganteae Rivas Goday ex Rivas-Mart. et Fernández-González 1991

R31 - [E31a] Mediterranean tall humid inland grassland

- < MOL-07A - Molinion-Holoschoenion Br.-Bl. ex Tchou 1948
- < MOL-07C - Dactylorhizo-Juncion striati S. Brullo et Grillo 1978
- < MOL-07F - Brachypodio sylvatici-Holoschoenion romani Gradstein et Smittenberg 1977

R32 - [E32a] Mediterranean short moist grassland of lowlands

- < MOL-07D - Deschampsion mediae Br.-Bl. et al. 1952 nom. conserv. propos.
- < MOL-07E - Gaudinio fragilis-Hordeion bulbosum Galán de Mera et al. 1997
- < MOL-10C - Trifolium maritimum Br.-Bl. ex Br.-Bl. et al. 1952

R33 - [E32b] Mediterranean short moist grassland of mountains

- < GEN-01B - Plantaginion insularis Klein 1972
- < MOL-07B - Sieglingion decumbentis Gamisans 1976
- < TRI-06A - Campanulo herminii-Nardion strictae Rivas-Mart. 1964
- < TRI-06B - Plantaginion thalackeri Quézel 1953

R34 - [E33] Submediterranean moist meadow

- < MOL-06A - Molinio-Hordeion secalini Horvatić 1934
- < MOL-06B - Trifolion resupinati Micevski 1957
- < MOL-06C - Trifolio-Ranunculion pedati Slavnić 1948
- < MOL-06D - Trifolion pallidi Ilijanić 1969
- < MOL-06E - Ranunculion velutini Pedrotti 1978

R35 - [E34a] Moist or wet mesotrophic to eutrophic hay meadow

- < MOL-02A - Agrostion vinealis Sipailova et al. 1985
- < MOL-02B - Artemision ponticae Golub et Saveleva in Golub 1995
- < MOL-02C - Trifolion montani Naumova 1986
- < MOL-05B - Calthion palustris Tx. 1937
- < MOL-05C - Bromion racemosi Tx. In Tx. et Preising ex de Foucault 2009
- < MOL-05D - Deschampsion cespitosae Horvatić 1930
- < MOL-05F - Oenanthion fistulosae de Foucault 2009
- < MOL-05G - Eleocharition palustris Mirkin et Naumova 1986

R36 - [E34b] Moist or wet mesotrophic to eutrophic pasture

- <> MOL-05E - Conioselinion tatarici Golub et al. 2003
- < MOL-08E - Mentho longifoliae-Juncion inflexi T. Müller et Görs ex de Foucault 2009
- < MOL-10A - Potentillion anserinae Tx. 1947

R37 - [E35] Temperate and boreal moist or wet oligotrophic grassland

- < MOL-05A - Molinion caeruleae Koch 1926

R41 - [E41] Snow-bed vegetation

- <> HER-01A - Salicion herbaceae Br.-Bl. in Br.-Bl. et Jenny 1926
- <> HER-01B - Salici herbaceae-Arabidion caeruleae Englisch 1999
- < HER-01C - Salici herbaceae-Caricion lachenalii Béguin et Theurillat 1982
- < HER-01D - Festucion picturatae Krajina 1933 corr. Dúbravcová 2007
- < HER-01E - Ranunculion crenati Lakušić 1968
- < HER-01F - Sedion candollei Rivas-Mart., Fernández-González et Loidi in Rivas-Mart. et al. 2011
- < HER-01G - Hyalopoion ponticae Rabotnova et Onipchenko in Onipchenko 2002
- <> HER-01H - Cassiopo-Salicion herbaceae Nordhagen 1943
- < HER-01I - Deschampsio-Anthoxanthion Gjaerevoll 1950
- < HER-01J - Saxifrago stellaris-Oxyrion digynae Gjaerevoll 1950
- < THL-02A - Saxifrago oppositifoliae-Oxyrion digynae Gjaerevoll 1950
- < THL-02B - Ranunculo-Poion alpinae Gjaerevoll ex Daniëls
- < THL-02C - Arabidion caeruleae Br.-Bl. in Br.-Bl. et Jenny 1926

R42 - [E43a] Boreal and arctic acidophilous alpine grassland

- < TRI-01A - Carici-Juncion trifidi Nordhagen 1943
- <> TRI-01B - Nardo-Caricion rigidae Nordhagen 1943
- < TRI-01C - Cladonio-Viscarion alpinae Daniëls 1982

R43 - [E43b] Temperate acidophilous alpine grassland

- < NAR-01I - Potentillo montenegrinae-Festucion paniculatae Redžić ex Čarni et Mucina 2015
- <> TRI-01B - Nardo-Caricion rigidae Nordhagen 1943
- < TRI-01D - Lagotido uralensis-Caricion ensifoliae Chytrý et Mucina in Chytrý et al. 2015
- < TRI-02A - Caricion curvulae Br.-Bl. 1925
- < TRI-02B - Juncion trifidi Krajina 1933
- < TRI-02C - Festucion supinae Br.-Bl. 1948
- < TRI-02D - Anemonion speciosae Minaeva ex Onipchenko 2002
- < TRI-03A - Carici macrostylidi-Nardion (Rivas-Mart. et al. 1984) de Foucault 1994
- < TRI-03B - Nardion strictae Br.-Bl. 1926
- < TRI-03C - Potentillo ternatae-Nardion Simon 1958
- < TRI-03D - Festucion variae Br.-Bl. ex Guinochet 1938
- < TRI-03E - Agrostion schraderianae Grabherr 1993
- < TRI-03F - Festucion eskiae Br.-Bl. 1948
- < TRI-04A - Festuco italicae-Nardion strictae Di Pietro, Terzi et Fortini ined.
- < TRI-04B - Ranunculo-Nardion strictae Bonin 1972
- < TRI-05A - Festucion woronowii Tsepikova 1987
- < TRI-07A - Poion violaceae Horvat et al. 1937
- < TRI-07B - Seslerion comosae Horvat et al. 1937
- < TRI-07C - Campanulion albanicae Lakušić 1966

R44 - [E44a] Arctic-alpine calcareous grassland

- <> KOB-01A - Kobresio-Dryadion Nordhagen 1943
- <> KOB-01C - Dryadion integrifoliae Ohba ex Daniëls 1982
- < KOB-02A - Oxytropido-Elynion myosuroidis Br.-Bl. 1950
- < KOB-02B - Leontopodio nivalis-Elynion myosuroidis (Blasi et al. 2003) Di Pietro et Mucina in Chytrý et al. 2015
- < KOB-02C - Festucion versicoloris Krajina 1933
- < KOB-02D - Agrostion alpinae Jeník et al. 1980
- < KOB-03A - Kobresion capilliformis Tsepikova 1987
- < SES-01A - Seslerion caeruleae Br.-Bl. in Br.-Bl. et Jenny 1926
- < SES-01B - Caricion austroalpinae Sutter 1962
- < SES-01C - Caricion ferrugineae G. Br.-Bl. et Br.-Bl. in G. Br.-Bl. 1931
- < SES-01D - Caricion firmae Gams 1936
- < SES-01E - Astero alpini-Seslerion calcariae Hadač in Hadač et al. 1969 nom. invers. propos.
- < SES-01F - Seslerion tatrae Pawłowski 1935 corr. Klika 1955

- < SES-01G - *Festuco saxatilis*-*Seslerion bielzii* (Pawłowski et Walas 1949) Coldea 1984
- <> SES-01H - *Primulion intricatae* Br.-Bl. ex Vigo 1972
- <> SES-01H - *Primulion intricatae* Br.-Bl. ex Vigo 1972
- < SES-01I - *Armerion cantabricae* Rivas-Mart. et al. 1984

R45 - [E44b] Alpine and subalpine calcareous grassland of the Balkan and Apennines

- < SES-02A - *Seslerion tenuifoliae* Horvat 1930
- < SES-02B - *Seslerio juncifoliae*-*Caricion firmae* Trinajstić 2005
- < SES-02C - *Festucion pungentis* Horvat 1930
- < SES-02D - *Seslerion apenninae* Furnari in Bruno et Furnari 1966
- < SES-03A - *Oxytropidion dinaricae* Lakušić 1966
- < SES-03B - *Anthyllido-Seslerion klasterskyi* Simon 1958
- < SES-03C - *Seslerio-Festucion xanthinae* Horvat in Horvat et al. 1974
- < SES-03D - *Festuco-Knaution longifoliae* Jovanović-Dunjić 1955
- < SES-03E - *Festucion xanthinae* Lakušić et al. 1969
- < SES-03F - *Seslerion nitidae* Horvat 1936

R51 - [E52a] Thermophilous forest fringe of base-rich soils

- < GER-01A - *Knaution dipsacifoliae* Julve ex Dengler et Boch 2008
- < GER-01B - *Trifolion medii* T. Müller 1962
- < GER-01C - *Violion kitaibeliana* Ubaldi 2011
- < GER-02A - *Geranion sanguinei* Tx. in T. Müller 1962
- < GER-02B - *Galio littoralis*-*Geranion sanguinei* Géhu et Géhu-Franck in de Foucault et al. 1983
- < GER-02C - *Dictamno albi-Ferulagion galbaniferae* (van Gils et al. 1975) de Foucault et al. ex Čarni et Dengler in Mucina et al. 2009
- < GER-02D - *Lathyro laxiflori*-*Trifolion velenovskyi* (Čarni et al. 2000) Čarni 2005
- < GER-02E - *Asparago acutifolii*-*Teucrium chamaedryos* Ubaldi 2011
- < GER-03A - *Stachyo lusitanicae*-*Cheirolophion sempervirentis* (Capelo 1996) Capelo in Di Pietro et al. 2015
- < GER-03B - *Thalictro aquilegiifolii*-*Asphodelion macrocarpi* Allegrezza et al. 2015
- < GER-03C - *Cyano triumfetti*-*Asphodelion macrocarpae* Biondi et Allegrezza in Biondi et al. 2014

R52 - [E52b] Woodland fringe of acidic nutrient-poor soils

- < GER-03D - *Hyperico calabrica*e-*Asphodelion macrocarpi* Biondi, Gangale et Uzunov in Biondi et al. 2014
- < GER-05A - *Melampyrion pratensis* Passarge 1979
- < GER-05B - *Violo riviniana*e-*Stellarion holostea*e Passarge 1994
- < GER-05C - *Poion nemoralis* Dengler et al. 2006
- < GER-05D - *Teucrium scorodoniae* de Foucault et al. 1983
- < GER-05E - *Linarion triornithophorae* Rivas-Mart. et al. 1984

- < GER-05F - *Origanion virentis* Rivas-Mart. et O. de Bolòs in Rivas-Mart. et al. 1984
- < GER-05G - *Luzulo sieberi-Brachypodion genuensis* Allegrezza et Biondi in Biondi et al. 2015

R53 - [E52c] Macaronesian thermophilous forest fringe

- < GER-04A - *Ranunculo cortusifolii-Geranion canariensis* Rivas-Mart. et al. 1993
- < GER-04B - *Pericallion malvifoliae* Fernández Prieto, Dias et Aguiar in Fernández Prieto et al. 2012

R54 - [E53] Pteridium aquilinum vegetation

- ↓ EPI-01A - *Epilobion angustifolii* Oberd. 1957
- ↓ LON-01A - *Lonicero-Rubion silvatici* Tx. et Neumann ex Wittig 1977
- < GER-05H - *Digitalidi ferrugineae-Pteridion aquilini* Biondi et Casavecchia in Biondi et al. 2014

R55 - [E54] Lowland moist or wet tall-herb and fern fringe

- < EPI-02B - *Impatienti noli-tangere-Stachyion sylvaticae* Görs ex Mucina 1993
- < EPI-02C - *Aegopodion podagrariae* Tx. 1967 nom. conserv. propos.
- < EPI-04A - *Senecionion fluviatilis* Tx. ex Moor 1958
- < EPI-04B - *Archangelicion litoralis* Scamoni et Passarge 1963
- < EPI-04C - *Nardosmion laevigatae* Klotz et Köck 1986
- < EPI-04D - *Cynancho-Convolvulion sepium* Rivas Goday et Rivas-Mart. ex Rivas-Mart. 1977
- < EPI-04E - *Dorycnio recti-Rumicion conglomerati* Gradstein et Smittenberg 1977
- < EPI-04F - *Ipomoeo acuminatae-Ageratinion adenophorae* Espírito-Santo et al. 2004
- <> MOL-05E - *Conioselinion tatarici* Golub et al. 2003
- < MOL-08A - *Filipendulo-Petasion* Br.-Bl. ex Duvigneaud 1949
- < MOL-08B - *Rumicion balcanici* Lakušić ex D. Lakušić et al. 2015
- < MOL-08C - *Veronico longifoliae-Lysimachion vulgaris* (Passarge 1977) Bal.-Tul. 1981
- < MOL-08D - *Filipendulion ulmariae* Segal ex Westhoff et Den Held 1969
- < MOL-09A - *Althaeion officinalis* Golub et Mirkin in Golub 1995
- < MOL-09B - *Euphorbion palustris* Ageleulov et Golub in Golub 1995
- < MOL-09C - *Lythro-Euphorbion* Mirkin et Naumova 1986

R56 - [E55] Montane to subalpine moist or wet tall-herb and fern fringe

- < MUL-01A - *Adenostylion alliariae* Br.-Bl. 1926 nom. conserv. propos.
- < MUL-01B - *Dryopterido filicis-maris-Athyron distentifolii* (Holub ex Sýkora et Štursa 1973) Jeník et al. 1980
- < MUL-01C - *Delphinion elati* Hadač in Hadač et al. 1969
- < MUL-01D - *Cirsion flavispinae* Quézel 1953
- < MUL-01E - *Doronicion corsici* Gamisans 1975
- < MUL-01F - *Cirsion appendiculati* Horvat et al. 1937
- < MUL-02A - *Calamagrostion villosae* Pawłowski et al. 1928

- < MUL-02B - Trisetion fusci Krajina 1933
- < MUL-02C - Calamagrostion arundinaceae (Luquet 1926) Oberd. 1957
- < MUL-03A - Petasition officinalis Sillinger 1933
- < MUL-03B - Arunco-Petasition albi Br.-Bl. et Sutter 1977
- < MUL-03C - Senecionion samniti Bonin 1978
- < MUL-04A - Rumicion alpini Scharfetter 1938
- < MUL-05A - Mulgedion alpini Nordhagen 1943
- < MUL-06A - Polemonio acutiflori-Veratrion lobeliani Telyatnikov 2012
- < MUL-07A - Trisetio sibirici-Aconition septentrionalis Ermakov et al. 2000

R57 - [E56] Herbaceous forest clearing vegetation

- < EPI-01A - Epilobion angustifolii Oberd. 1957
- < EPI-01B - Linarion niveae Rivas-Mart. 1964

R61 - [E61] Mediterranean inland salt steppe

- < FEP-01D - Puccinellion convolutae Micevski 1965
- < FEP-01E - Puccinellion lagascae Rivas-Mart. in Rivas-Mart. et M. Costa 1976 corr. Alonso et De la Torre 2004
- < FEP-02A - Halo-Artemision Pignatti 1953
- < SAG-02A - Frankenion pulverulentae Rivas-Mart. ex Castroviejo et Porta 1976
- < SAG-02B - Polypogonion subspathacei Gamisans 1990
- < SAG-02C - Gaudinio-Podospermion cani S. Brullo et Siracusa 2000
- < SAG-02D - Pholiuro-Spergularion Pignatti 1952
- < SAG-02E - Mesembryanthemion nodiflori Nègre 1959
- < SAG-02F - Mesembryanthemion crystallini Rivas-Mart. et al. 1993
- < SAL-01A - Salicornion fruticosae Br.-Bl. 1933
- < SAL-02A - Lygeo-Lepidion cardaminis Rivas Goday et Rivas-Mart. in Rivas-Mart. et M. Costa 1984
- < SAL-02B - Lygeo sparti-Limonion furfuracei Rigual 1972
- < SAL-02C - Limonion catalaunico-viciosoi Rivas-Mart. et M. Costa 1984
- < SAL-02D - Limonion algarvensi-lanceolati J.C. Costa et al. 2012
- < SAL-02E - Limonion confusi (Br.-Bl. 1933) Rivas-Mart. et M. Costa 1984
- < SAL-02F - Triglochino barrelieri-Limonion glomerati Biondi et al. 2001
- < SAL-03A - Limoniastrion monopetali Pignatti 1952
- < SAL-03B - Halocnemion cruciati Biondi et al. 2013
- < THE-02C - Microcnemion coralloidis Rivas-Mart. et Géhu in Rivas-Mart. 1984

R62 - [E62] Continental inland salt steppe

- < FEP-01A - Festucion pseudovinae Soó 1933
- < FEP-01B - Peucedano officinalis-Asterion sedifolii Borhidi 1996
- < FEP-01C - Puccinellion limosae Soó 1933

- < FEP-02B - *Artemision maritimae* Micevski 1970
- < FEP-02C - *Atraphaxo-Capparion Korzhenevskii* 1992
- < FEP-03A - *Plantagini salsae-Artemision santonici* Lysenko et Mucina in Lysenko et al. 2011
- < FEP-03B - *Limonion sareptani* Golub 1994
- < FEP-03C - *Limonion tomentelli* Agafonov et Golub in Golub 1994
- < FEP-03D - *Puccinellion giganteae* Dubyna et Neuhäuslová 2000
- < FEP-03E - *Festuco valesiaca-Limonion gmelinii* Mirkin in Golub et V. Solomakha 1988
- < FEP-03F - *Diantho guttati-Milion vernalis* Umanets et V. Solomakha 1998
- < THE-02D - *Thero-Camphorosmion annuae* Vicherek 1973

R63 - [E63] Temperate inland salt marsh

- < FEP-05A - *Juncion gerardi* Wendelberger 1943
- < FEP-05B - *Beckmannion eruciformis* Soó 1933
- < FEP-05C - *Carici dilutae-Juncion gerardi* Lysenko et Mucina 2015
- < FEP-05D - *Agrostio stoloniferae-Beckmannion eruciformis* Mirkin in Barabash et al. 1989
- < FEP-05E - *Cirsion esculenti* Golub 1994
- < JUN-03A - *Festucion maritimae* Christiansen 1927
- < JUN-03B - *Puccinellio maritimae-Spergularion salinae* Beeftink 1965
- < JUN-03C - *Armerion maritimae* Br.-Bl. et De Leeuw 1936
- <> MOL-10B - *Loto tenuis-Trifolion fragiferi* Westhoff et Den Held ex de Foucault 2009
- < THE-01A - *Therosalicornion* Br.-Bl. 1933
- < THE-02A - *Salicornion prostratae* Géhu 1992
- <> THE-02B - *Suaedion acuminatae* Golub et Tsozbadze in Golub 1995 corr. Lysenko et Mucina 2015

R64 - [E64] Semi-desert salt pan

- < AEL-01A - *Elytrigio-Aeluropodion Ageleulov* et Golub in Golub 1995
- < FEP-04A - *Artemisio pauciflorae-Camphorosmion monspeliaca* Karpov 2001
- < FEP-04B - *Alhagion pseudalhagi* Golub et Czorbadze in Golub 1994
- < KAL-01A - *Kalidion caspici* Golub et al. 2001
- < KAL-01B - *Climacoptero crassae-Suaedion acuminatae* Golub et Čorbadze 1989 corr. Lysenko et Mucina 2015
- < KAL-02A - *Artemisio santonicae-Puccinellion fominii* Shelyag-Sosonko et al. 1989
- < KAL-02B - *Camphorosmo-Agropyron desertorum* Korzhenevsky et Klyukin ex Golub et al. 2006
- < THE-02A - *Salicornion prostratae* Géhu 1992
- <> THE-02B - *Suaedion acuminatae* Golub et Tsozbadze in Golub 1995 corr. Lysenko et Mucina 2015
- < THE-02E - *Camphorosmo songoricae-Suaedion corniculatae* Freitag et al. 2001

R65 - [E65] Continental subsaline alluvial pasture and meadow

- < FEP-06A - Glycyrrhizion echinatae Golub et Saveleva in Golub 1995
- < FEP-06B - Glycyrrhizion korshinskyi Lysenko 2010
- < FEP-06C - Glycyrrhizion glabrae Golub et Mirkin in Golub 1995

R71 - [E71] Temperate wooded pasture and meadow

-

R72 - [E72] Hemiboreal and boreal wooded pasture and meadow

-

R73 - [E73] Mediterranean wooded pasture and meadow

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S11 - [F11] Shrub tundra

- <> KOB-01A - Kobresio-Dryadion Nordhagen 1943
- <> KOB-01B - Dryado octopetalae-Caricion arctisibiricae Koroleva et Kulyugina in Chytrý et al. 2015
- <> KOB-01C - Dryadion integrifoliae Ohba ex Daniëls 1982
- <> LOI-03A - Loiseleurio-Arctostaphylion Kalliola ex Nordhagen 1943
- <> LOI-03B - Phyllodoco-Vaccinion myrtilli Nordhagen 1943

S12 - [F12] Moss and lichen tundra

- < COC-01B - Cerastio arctici-Saxifragion cernuae H. Hartmann ex Mucina et Daniëls all. nov.
- <> KOB-01A - Kobresio-Dryadion Nordhagen 1943
- <> KOB-01B - Dryado octopetalae-Caricion arctisibiricae Koroleva et Kulyugina in Chytrý et al. 2015
- <> KOB-01C - Dryadion integrifoliae Ohba ex Daniëls 1982
- <> LOI-03A - Loiseleurio-Arctostaphylion Kalliola ex Nordhagen 1943
- <> LOI-03B - Phyllodoco-Vaccinion myrtilli Nordhagen 1943

S21 - [F21] Subarctic and alpine dwarf Salix scrub

- <> HER-01A - Salicion herbaceae Br.-Bl. in Br.-Bl. et Jenny 1926
- <> HER-01B - Salici herbaceae-Arabidion caeruleae Englisch 1999
- <> HER-01H - Cassiopo-Salicion herbaceae Nordhagen 1943

S22 - [F22a] Alpine and subalpine ericoid heath

- <> KOB-01A - Kobresio-Dryadion Nordhagen 1943
- < KOB-03B - Salici kazbekensis-Empetrion nigrae Onipchenko 2002
- < LOI-01A - Loiseleurio procumbentis-Vaccinion Br.-Bl. in Br.-Bl. et Jenny 1926
- < LOI-01B - Rhododendro ferruginei-Vaccinion Br.-Bl. ex Schnyder 1930
- < LOI-01C - Vaccinion myrtilli Krajina 1933

- < LOI-01D - *Rhododendrion myrtifolii* de Foucault ex Theurillat et Mucina all. nov.
- < LOI-01E - *Rhododendrion caucasici* Onipchenko 2002
- <> LOI-03A - *Loiseleurio-Arctostaphylion Kalliola* ex Nordhagen 1943
- <> LOI-03B - *Phyllodoco-Vaccinion myrtilli* Nordhagen 1943
- < RHO-01A - *Ericion carneae* Rübél ex Grabherr et al. 1993
- < RHO-01B - *Aquilegio nigricantis-Rhododendrion hirsuti* Čarni et Mucina 2015
- <> ULI-02D - *Genisto pilosae-Vaccinion Br.-Bl.* 1926
- < ULI-02E - *Bruckenthalion spiculifoliae* Horvat 1949

S23 - [F22b] Alpine and subalpine Juniperus scrub

- < LOI-02A - *Juniperion nanae Br.-Bl. in Br.-Bl. et al.* 1939
- < LOI-02B - *Daphno oleoidis-Juniperion alpinae Stanisci* 1997
- < LOI-02C - *Aconito nasuti-Juniperion communis Onipchenko* 2002
- < SAB-02B - *Genisto versicoloris-Juniperion hemisphaericae Rivas-Mart. et J.A. Molina in Rivas-Mart. et al.* 1999
- < SAB-02C - *Pruno prostratae-Juniperion sabiniae Rivas-Mart. et J.A. Molina in Rivas-Mart. et al.* 1999

S24 - [F22c] Subalpine genistoid scrub of the Amphi-Adriatic region

- < RHO-01C - *Daphno oleoidis-Genistion radiatae N. Randelović, Rexhepi et Jovanović ex Mucina et Theurillat* all. nov.

S25 - [F23] Subalpine and subarctic deciduous scrub

- < VIR-01A - *Alnion viridis Schnyder* 1930
- < VIR-01B - *Salicion pentandrae Br.-Bl.* 1967
- < VIR-01C - *Salicion helveticae Rübél ex Theurillat in Theurillat et al.* 1995
- < VIR-01D - *Salicion silesiacaе Rejmánek et al.* 1971
- < VIR-01E - *Pruno petraeae-Sorbion aucupariae Rameau ex Seytre et Bœuf in Bœuf* 2011
- < VIR-02A - *Seslerio calcariae-Rhamnion fallacis Dakskobler et al.* 2013
- < VIR-02B - *Lonicero-Rhamnion fallacis P. Fukarek* 1969
- <> VIR-03A - *Salicion phylicifoliae Dierssen* 1992
- < VIR-03B - *Salicion callicarpeae Daniëls* all. nov.
- < VIR-03C - *Geranio sylvatici-Betulion pumilae Mucina et Willner* ined.
- <> VIR-04A - *Rhododendro caucasici-Betulion litwinowii Onipchenko* 2002

S26 - [F24] Subalpine Pinus mugo scrub

- < MUG-01A - *Pinion mugo Pawłowski et al.* 1928
- < MUG-01B - *Erico-Pinion mugo Leibundgut* 1948
- < MUG-01C - *Epipactido atropurpureae-Pinion mugo Stanisci* 1997
- < MUG-01D - *Lonicero borbasianaе-Pinion mugo Čarni et Mucina* 2015

S31 - [F31a] Lowland to montane temperate and submediterranean Juniperus scrub

- < RHA-01I - Brachypodio pinnati-Juniperion communis Mucina all. nov.
- <> SAB-03C - Jasmino-Juniperion excelsae Didukh, Vakarenko et Shelyag-Sosonko ex Didukh 1996
- < ULI-03A - Vaccinio-Juniperion communis Passarge in Passarge et G. Hofmann 1968

S32 - [F31b] Temperate Rubus scrub

- < LON-01A - Lonicero-Rubion silvatici Tx. et Neumann ex Wittig 1977
- < LON-02A - Frangulo-Rubion Rivas Goday 1964
- < RHA-01F - Pruno-Rubion radulae Weber 1974
- <> RHA-03A - Pruno spinosae-Rubion ulmifolii O. de Bolòs 1954
- < RHA-03D - Scrophulario glabratae-Rubion ulmifolii Vicente Orellana et al. 2012

S33 - [F31c] Lowland to montane temperate and submediterranean genistoid scrub

- < CYT-01A - Ulici europaei-Cytision striati Rivas-Mart. et al. 1991
- < CYT-01B - Genistion floridae Rivas-Mart. 1974
- < CYT-01C - Cytision multiflori Rivas-Mart. 1974
- < CYT-01D - Retamion monospermae Rivas-Mart. et Cantó in Rivas-Mart et al. 2002
- < CYT-01E - Retamion sphaerocarpae Rivas-Mart. 1981
- < CYT-01F - Adenocarpion decorticantis (Rivas-Mart. et F. Valle ex F. Valle 1985) Rivas-Mart. et al. 1999
- < CYT-01G - Violo messanensis-Adenocarpion complicati Mucina all. nov.
- < CYT-02A - Telinion monspessulano-linifoliae Rivas-Mart. et al. 2002
- < CYT-02B - Genisto spartioidis-Phlomidion almeriensis Rivas Goday et Rivas-Mart. 1969
- < CYT-02C - Genisto scorpii-Retamion sphaerocarpae Rivas-Mart. et M. Costa in Rivas-Mart. et al. 2011
- < CYT-02D - Genistion specioso-equisetiformis Rivas-Mart. et F. Valle in Rivas-Mart. et al. 2011
- <> CYT-03A - Sarothamnion scoparii Oberd. 1957
- <> CYT-03C - Erico scopariae-Cytision scoparii Mucina all. nov.
- < RHA-02A - Cytision sessilifolii Biondi in Biondi et al. 1989

S34 - [F31d] Balkan-Anatolian submontane genistoid scrub

- < - no relationship (yet)

S35 - [F31e] Temperate and submediterranean thorn scrub

- <> LON-01B - Molinio-Frangulion Passarge in Passarge et G. Hofmann 1968
- <> PUB-01H - Syringo-Carpinion orientalis Jakucs (1959) 1960
- <> RHA-01A - Berberidion vulgaris Br.-Bl. ex Tx. 1952 nom. conserv. propos.
- <> RHA-01B - Amelanchiero-Buxion O. de Bolòs et Romo in Romo 1989
- < RHA-01C - Lonicero arborea-Berberidion hispanicae O. de Bolòs 1954

- <> RHA-01D - Urtico-Crataegion Passarge et G. Hofmann 1968
- < RHA-01G - Frangulo alni-Pyrion cordatae Herrera et al. 1991
- <> RHA-01H - Tamo communis-Viburnion lantanae (Géhu et al. 1983) Mucina stat. nov.
- < RHA-01K - Lamio purpureae-Acerion tatarici Fitsailo 2007
- <> RHA-02B - Ilici aquifolii-Crataegion laciniatae Ubaldi 2011
- < RHA-02C - Fraxino orni-Cotinion Soó 1960
- <> RHA-02D - Buxo-Syringion P. Fukarek ex Diklić 1965
- <> RHA-02E - Paliuro-Petterion P. Fukarek 1962
- < RHA-02F - Rhamno saxatilis-Paliurion spinae-christi Biondi, Casavecchia, Biscotti et Pesaresi in Biondi et al. 2014
- < RHA-02G - Eryngio campestris-Paliurion spinae-christi (Jovanović 1985) Matevski et al. 2008
- <> RHA-02H - Berberido creticae-Prunion cocomiliae Bergmeier 1990
- < RHA-02I - Asparago verticillati-Crataegion tauricae Korzhenevskii et Kliukin 1990
- <> RHA-02J - Elytrigio nodosae-Rhuion coriariae Korzhenevskii et Ryff ex Didukh et Mucina 2014
- < RHA-03B - Arundo plinii-Rubion ulmifolii Biondi, Blasi, Casavecchia et Gasparri in Biondi et al. 2014
- < RHA-03C - Rubio periclymeni-Rubion ulmifolii Oberd. ex Rivas-Mart. et al. 1993
- < RHA-04A - Lauro nobilis-Sambucion nigrae Biondi, Blasi, Casavecchia, Galdenzi et Gasparri in Biondi et al. 2014

S36 - [F31f] Low steppic scrub

- < RHA-01J - Prunion fruticosae Tx. 1952

S37 - [F31g] Corylus avellana scrub

- <> RHA-01A - Berberidion vulgaris Br.-Bl. ex Tx. 1952 nom. conserv. propos.
- <> RHA-01D - Urtico-Crataegion Passarge et G. Hofmann 1968
- < RHA-01E - Astrantio-Corylion avellanae Passarge 1978
- <> RHA-01H - Tamo communis-Viburnion lantanae (Géhu et al. 1983) Mucina stat. nov.

S38 - [F31h] Temperate forest clearing scrub

- < ROB-01A - Sambuco-Salicion capreae Tx. et Neumann ex Oberd. 1957
- <> LON-01B - Molinio-Frangulion Passarge in Passarge et G. Hofmann 1968

S41 - [F41] Wet heath

- < OXY-01A - Ericion tetralicis Schwickerath 1933
- < OXY-01B - Oxycocco-Ericion tetralicis Nordhagen ex Tx. 1937
- <> ULI-01B - Ulicion Malcuit 1929
- < ULI-01E - Genistion micrantho-anglica Rivas-Mart. 1979

S42 - [F42] Dry heath

- < ULI-01A - *Ericion cinereae* Böcher 1940
- <> ULI-01B - *Ulicion Malcuit* 1929
- < ULI-01C - *Daboecion cantabricae* (Dupont ex Rivas-Mart. 1979) Rivas-Mart. et al. in Loidi et al. 1997
- <> ULI-01D - *Ericion umbellatae* Br.-Bl. in Br.-Bl. et al. 1952
- < ULI-01F - *Stauracanthion boivinii* (Rivas-Mart. 1979) Rivas-Mart. et al. 1999
- <> ULI-02B - *Calluno-Genistion pilosae* P. Duvigneaud 1945
- < ULI-02C - *Euphorbio-Callunion* Schubert ex Passarge 1964
- <> ULI-02D - *Genisto pilosae-Vaccinion* Br.-Bl. 1926

S43 - [F43] Macaronesian heath

- <> LAU-01A - *Myrico fayae-Ericion arboreae* Oberd. 1965
- <> LAU-01B - *Polysticho falcinelli-Ericion arboreae* Rivas-Mart. et al. 2002
- < LAU-01C - *Telino canariensis-Adenocarpion foliolosi* Rivas-Mart. et al. 1993
- < LAU-01D - *Bystropogono punctati-Telinion maderensis* Capelo et al. 2000
- < ULI-01G - *Daboecion azoricae* Lüpnitz 1975

S51 - [F51] Mediterranean maquis and arborescent matorral

- <> LAV-01D - *Quercion fruticosae* Rothmaler 1954
- <> QUI-04A - *Ericion arboreae* (Rivas-Mart. ex Rivas-Mart. et al. 1986) Rivas-Mart. 1987
- <> QUI-04C - *Asparago albi-Rhamnion oleoidis* Rivas Goday ex Rivas-Mart. 1975
- <> QUI-04D - *Rhamno lycioidis-Quercion cocciferae* Rivas Goday ex Rivas-Mart. 1975
- <> QUI-04E - *Periplocion angustifoliae* Rivas-Mart. 1975
- <> QUI-04H - *Oleo-Ceratonion siliquae* Br.-Bl. ex Guinochet et Drouineau 1944
- <> QUI-04L - *Ceratonio-Pistacion lentisci* Zohary et Orshan 1959
- < QUI-04M - *Pistacio terebinthi-Rhamnion alaterni* Barbero et Quézel 1975

S52 - [F53] Submediterranean pseudomaquis

- <> PUB-01H - *Syringo-Carpinion orientalis* Jakucs (1959) 1960
- <> RHA-01B - *Amelanchiero-Buxion* O. de Bolòs et Romo in Romo 1989
- <> RHA-02B - *Ilici aquifolii-Crataegion laciniatae* Ubaldi 2011
- <> RHA-02D - *Buxo-Syringion* P. Fukarek ex Diklić 1965
- <> RHA-02E - *Paliuro-Petterion* P. Fukarek 1962
- <> RHA-02H - *Berberido creticae-Prunion cocomiliae* Bergmeier 1990
- <> RHA-02J - *Elytrigio nodosae-Rhuion coriariae* Korzhenevskii et Ryff ex Didukh et Mucina 2014

S53 - [F54] *Spartium junceum* scrub

- <> CYT-03A - *Sarothamnion scoparii* Oberd. 1957
- <> CYT-03B - *Cytision oromediterraneo-scoparii* Rivas-Mart. et al. 2002
- <> CYT-03C - *Erico scopariae-Cytision scoparii* Mucina all. nov.

- <> QUI-04A - *Ericion arboreae* (Rivas-Mart. ex Rivas-Mart. et al. 1986) Rivas-Mart. 1987
- <> QUI-04C - *Asparago albi-Rhamnion oleoidis* Rivas Goday ex Rivas-Mart. 1975
- <> QUI-04D - *Rhamno lycioidis-Quercion cocciferae* Rivas Goday ex Rivas-Mart. 1975
- <> QUI-04E - *Periplocion angustifoliae* Rivas-Mart. 1975
- <> QUI-04H - *Oleo-Ceratonion siliquae* Br.-Bl. ex Guinochet et Drouineau 1944
- <> QUI-04L - *Ceratonio-Pistacion lentisci* Zohary et Orshan 1959
- < QUI-04M - *Pistacio terebinthi-Rhamnion alatarni* Barbero et Quézel 1975

S54 - [F55] Thermomediterranean scrub

- <> QUI-04C - *Asparago albi-Rhamnion oleoidis* Rivas Goday ex Rivas-Mart. 1975
- <> QUI-04E - *Periplocion angustifoliae* Rivas-Mart. 1975

S61 - [F61a] Western basiphilous garrigue

- < ONO-01C - *Plantagini discoloris-Thymion mastigophori* Molina et Izco 1989
- < ONO-01D - *Seselio granatensis-Festucion hystricis* Rivas-Mart. in Rivas-Mart. et al. 2011
- < ONO-02E - *Genistion lobelii* Molinier 1934
- < ONO-02H - *Lavandulo angustifoliae-Genistion cinerea* Barbero et al. 1974
- < ROS-01A - *Lavandulo latifoliae-Genistion boissieri* Rivas Goday et Rivas-Mart. 1969
- < ROS-01B - *Eryngio trifidi-Ulicion erinacei* Rothmaler 1943
- < ROS-01C - *Ulici densi-Thymion sylvestris* (Capelo et al. 1993) J.C. Costa et al. 2009
- < ROS-01D - *Sideritido incanae-Salvion lavandulifoliae* (Rivas Goday et Rivas-Mart. 1969) Izco et Molina 1989
- < ROS-01E - *Helianthemo italici-Aphyllanthion monspeliensis* Díez Garretas et al. 1998
- <> ROS-01F - *Rosmarinion officinalis* Molinier 1934
- < ROS-01G - *Hypericion ericoidis* Esteve ex M. Costa et Peris 1985
- <> ROS-01H - *Hypericion balearici* O. de Bolòs et Molinier 1958
- < ROS-01I - *Cisto cretici-Genistion corsicae* Arrigoni et Di Tommaso 1991
- < ROS-01J - *Polygalo-Seslerion insularis* Arrigoni ex Arrigoni et Di Tommaso 1986
- < ROS-04A - *Thymo-Sideritidion leucanthae* O. de Bolòs 1957
- < ROS-04B - *Anthyllido terniflorae-Salsolion papillosae* Rivas Goday et Esteve 1968
- < ROS-04C - *Sideritidion bourgaeanae* Peinado et Martínez-Parras in Peinado et al. 1992
- <> ROS-05A - *Andryalion agardhii* Rivas-Mart. ex Rivas Goday et Mayor 1966
- < ROS-05B - *Lavandulion lanatae* (Martínez-Parras et al. 1984) Rivas-Mart. et al. 2002

S62 - [F61b] Western acidophilous garrigue

- < LAV-01A - *Cistion laurifolii* Rivas Goday in Rivas Goday et al. 1956
- < LAV-01B - *Staezelino-Ulicion baetici* Rivas Goday et Rivas-Mart. 1969
- < LAV-01C - *Ulici argentei-Cistion ladaniferi* Br.-Bl. et al. 1964
- < LAV-01E - *Cistion ladaniferi* Br.-Bl. ex A. Bolòs et O. Bolòs in A. Bolòs 1950
- < LAV-01F - *Calicotomo villosae-Genistion tyrrhenae* Biondi 2000
- < LAV-01G - *Teucrion mari* (Gamisans et Muracciole 1984) Biondi et Mossa 1992

- < LAV-01H - *Armerio sardoae*-*Genistion salzmannii* Arrigoni 1986
- < LAV-02A - *Coremation albi* Rothmaler 1943

S63 - [F62] Eastern garrigue

- < ROS-06A - *Cisto cretici*-*Ericion manipuliflorae* Horvatić 1958
- < ROS-06B - *Cisto eriocephali*-*Ericion multiflorae* Biondi 2000
- <> ROS-06C - *Micromerion* Oberd. 1954
- < ROS-06D - *Dorycnio*-*Coridothymion capitati* (Oberd. 1954) S. Brullo et al. 1997

S64 - [F65] Macaronesian garrigue

- < OLE-02A - *Cisto canariensis*-*Micromerion hyssopifoliae* Pérez de Paz et al. 1990 corr. Rivas-Mart. in Rivas-Mart. 2011
- < OLE-02B - *Soncho ustulati*-*Artemision argenteae* Capelo et al. 2000

S65 - [F67] Mediterranean gypsum scrub

- < ROS-03A - *Lepidion subulati* Bellot et Rivas Goday in Rivas Goday et al. 1957
- <> ROS-03B - *Thymo*-*Teucrium verticillati* Rivas Goday in Rivas Goday et al. 1957
- <> TRA-01C - *Sedo*-*Ctenopson gypsophilae* Rivas Goday et Rivas-Mart. ex Izco 1974

S66 - [F68a] Mediterranean halo-nitrophilous scrub

- < PEG-01A - *Salsolo vermiculatae*-*Peganion harmalae* Br.-Bl. et O. de Bolòs 1954
- < PEG-01B - *Haloxylon*-*Atriplicion* Rivas Goday et Rivas-Mart. ex Rigual 1972
- < PEG-01C - *Salsolo oppositifoliae*-*Suaedion fruticosae* Rigual 1972
- < PEG-01D - *Lycio europaei*-*Ipomoeion purpureae* O. de Bolòs ex Mucina all. nov.
- < PEG-01E - *Artemision arborescentis* Géhu et al. 1986
- < PEG-01F - *Atriplici halimi*-*Suaedion verae* Géhu et al. ex Bergmeier et Dimopoulos 2003
- < PEG-01G - *Medicagini citrinae*-*Lavaterion arborea* O. de Bolòs et Vigo in O. de Bolòs et al. 1984
- < PEG-02A - *Artemisio glutinosae*-*Santolinion rosmarinifoliae* M. Costa 1975
- < PEG-02B - *Santolinion pectinato-canescens* Peinado et Martínez-Parras 1984
- < PEG-03A - *Chenoleion tomentosae* Sunding 1972
- < PEG-04A - *Artemisio thusculae*-*Rumicion lunariae* Rivas-Mart. et al. 1993
- < PEG-04B - *Launaeo arborescentis*-*Schizogynion sericeae* Rivas-Mart. et al. 1993
- < PEG-04C - *Argyranthemum succulentum*-*Calendulion maderensis* Capelo et al. 2000
- < PEG-04D - *Nicotiano glaucae*-*Ricinion communis* Rivas-Mart. et al. 1999

S67 - [F68b] Aralo-Caspian semi-desert

- < LER-01A - *Artemision lerchiana* Golub 1994
- < LER-01B - *Anabasio aphyllae*-*Artemisio pauciflorae* Lysenko in Lysenko et Mucina 2015

S68 - [F68c] Semi-desert sand dune with sparse scrub

- < DIG-01G - *Tamarici ramosissimae-Salsolion australis* Golub 1994
- < LER-02A - *Euphorbion seguieranae* Golub 1994

S71 - [F71] Western Mediterranean spiny heath

- < CRI-02B - *Astragalion tragacanthae* (Folch ex Rivas-Mart., Fernández-González et Loidi 1999) Rivas-Mart. et al. 2002
- < CRI-02C - *Launaeion cervicornis* (O. de Bolòs et Vigo ex Gil et Llorens 1995) Rivas-Mart. et al. 1999
- <> ROS-01F - *Rosmarinion officinalis* Molinier 1934
- <> ROS-01H - *Hypericion balearici* O. de Bolòs et Molinier 1958

S72 - [F73] Eastern Mediterranean spiny heath (phrygana)

- < LAV-03A - *Hyperico olympici-Cistion cretici* (Oberd. 1954) R. Jahn et Bergmeier in Mucina et al. 2009
- < LAV-03B - *Odontarrheno euboeae-Lavandulion stoechadis* Mucina all. nov.
- < LAV-03C - *Helichryso barrelieri-Phagnalion graeci* (Barbero et Quézel 1989) R. Jahn in Mucina et al. 2009
- <> ROS-06C - *Micromerion* Oberd. 1954
- < ROS-07A - *Hyperico empetrifolii-Micromerion graecae* Barbero et Quézel 1989
- < ROS-07B - *Origano syriaci-Hypericion thymifolii* Mucina et Theurillat all. nov.
- < ROS-07C - *Sarcopoterio spinosi-Genistion fasselatae* M. Costa et al. 1984

S73 - [F74a] Western Mediterranean mountain hedgehog-heath

- <> CYT-03B - *Cytision oromediterraneo-scoparii* Rivas-Mart. et al. 2002
- < ONO-02F - *Echinospation horridi* Rivas-Mart. et al. 1991
- < ONO-02G - *Genistion occidentalis* Rivas-Mart. in Rivas-Mart. et al. 1984
- < ROS-02A - *Xeroacantho-Erinaceion* (Quézel 1953) O. de Bolòs 1967
- <> ROS-05A - *Andryalion agardhii* Rivas-Mart. ex Rivas Goday et Mayor 1966
- < SAB-02A - *Cytision oromediterranei* Tx. in Tx. et Oberd. 1958 corr. Rivas-Mart. 1987

S74 - [F74b] Central Mediterranean mountain hedgehog-heath

- < GEN-01A - *Anthyllidion hermanniae* Klein 1972
- < ONO-03E - *Cerastio-Astragalion nebrodensis* Pignatti et Nimis ex S. Brullo 1984
- < RUM-01A - *Rumici-Astragalion siculi* Poli 1965
- < RUM-01B - *Armerion nebrodensis* S. Brullo 1984
- < RUM-02A - *Koelerio brutiae-Astragalion calabrici* Giacomini et Gentile ex S. Brullo 2005
- < RUM-02B - *Armerion aspromontanae* S. Brullo et al. 2001

S75 - [F74c] Eastern Mediterranean mountain hedgehog-heath

- < CYP-01A - *Hyperico stenobotryos-Alyssion troodi* S. Brullo et al. 2005
- < DAP-01A - *Astragalo angustifolii-Seslerion coerulantis* Quézel 1964

- < DAP-01B - *Eryngio multifidi-Bromion fibrosi* Quézel 1964
- < DAP-01C - *Stipo pulcherrimae-Morinion persicae* Quézel 1964
- < DAP-02A - *Astragalion cretici* Bergmeier 2002
- < DAP-02B - *Verbascion spinosi* Zaffran ex Bergmeier 2002
- < DAP-02C - *Colchico cretensis-Cirsion morinifolii* Bergmeier 2002

S76 - [F74d] Canarian mountain hedgehog-heath

- < SUP-01A - *Spartocytision nubigeni* Oberd. ex Esteve 1973
- < SUP-01B - *Plantaginion webbii* Martín Osorio, Wildpret et Rivas-Mart. In Martín Osorio et al. 2007
- < VIO-01A - *Violion cheiranthifoliae* Voggenreiter ex Martín Osorio, Wildpret et Rivas-Mart. in Martín Osorio et al. 2007

S81 - [F81] Canarian xerophytic scrub

- < AEO-01A - *Soncho acaulis-Sempervivion* Sunding 1972
- < AEO-01B - *Greenovion aureae* Rivas-Mart. et al. 1993
- < AEO-02A - *Aichryso laxi-Monanthion laxiflorae* Santos et Reyes Betancort 2009
- <> KLE-01A - *Aeonio-Euphorbion canariensis* Sunding 1972
- < KLE-01B - *Euphorbion regijs-jubo-lamarckii* Rivas-Mart., Wildpret, O. Rodríguez et Del Arco in Rivas-Mart. et al. 2011

S82 - [F82] Madeiran xerophytic scrub

- < AEO-01C - *Sinapidendro angustifolii-Aeonion glutinosi* Capelo et al. 2000
- <> KLE-01A - *Aeonio-Euphorbion canariensis* Sunding 1972

S91 - [F91] Temperate riparian scrub

- < PUR-01A - *Salicion eleagno-daphnoidis* (Moor 1958) Grass 1993
- < PUR-01C - *Salicion triandrae* T. Müller et Görs 1958
- < PUR-01D - *Rubo caesii-Amorphion fruticosae* Shevchyk et V. Solomakha in Shevchyk et al. 1996
- < PUR-01E - *Artemisio dniproicae-Salicion acutifoliae* Shevchyk et V. Solomakha in Shevchyk et al. 1996
- < PUR-01F - *Salicion salviifoliae* Rivas-Mart. et al. 1984
- < PUR-01G - *Salicion discolori-neotrichae* Br.-Bl. et O. de Bolòs 1958 corr. Rivas-Mart. et al. 2002
- < PUR-01H - *Salicion cantabricae* Rivas-Mart., T.E. Díaz et Penas in Rivas-Mart. et al. 2011
- < PUR-01I - *Salicion pedicellatae* Rivas-Mart. et al. 1984
- < PUR-01J - *Salicion apennino-purpureae* Biondi et Allegranza in Biondi et al. 2014
- < PUR-02A - *Tamaricion parviflorae* I. Kárpáti et V. Kárpáti 1961
- < PUR-02B - *Artemisio scopariae-Tamaricion ramosissimae* Simon et Dihoru 1963
- <> VIR-03A - *Salicion phyllicifoliae* Dierssen 1992

S92 - [F92] Salix fen scrub

- < FRA-01A - Salicion cinereae T. Müller et Görs ex Passarge 1961
- < FRA-01B - Alno incanae-Salicion pentandrae Kielland-Lund 1981

S93 - [F93] Mediterranean riparian scrub

- < NER-01A - Tamaricion africanae Br.-Bl. et O. de Bolòs 1958
- < NER-01B - Tamaricion boveano-canariensis Izco et al. 1984
- < NER-01C - Rubo ulmifolii-Nerion oleandri O. de Bolòs 1958
- < NER-01D - Securinegion buxifoliae Rivas Goday ex López Sáez et Velasco-Negueruela 1995
- < NER-01E - Tamaricion dalmatica Jasprica in Jasprica, Kovačić & Ruščić 2016
- <> NER-01F - Rubo sancti-Nerion oleandri Brullo et al. 2004
- < PUR-03A - Salicion canariensis Rivas-Mart., Wildpret, Del Arco, O. Rodríguez, Pérez de Paz, García Gallo, Acebes, T.E. Díaz et Fernández-González ex Rivas-Mart. et al. 1999

S94 - [F94] Semi-desert riparian scrub

- < TAM-01A - Agropyro fragilis-Tamaricion ramosissimae Golub in Barmin 2001

T11 - [G11] Temperate softwood riparian forest

- < PUR-01B - Salicion albae Soó 1951

T12 - [G12a] Alnus glutinosa-Alnus incana forest on riparian and mineral soils

- <> POP-02A - Alnion incanae Pawłowski et al. 1928

T13 - [G12b] Temperate hardwood riparian forest

- <> POP-02A - Alnion incanae Pawłowski et al. 1928
- < POP-02B - Hyperico androsaemi-Alnion glutinosae (Amigo et al. 1987) Biurrun et al. 2016
- < POP-02C - Fraxino-Quercion roboris Passarge 1968
- <> POP-02D - Alno-Quercion roboris Horvat 1950
- < POP-02E - Poo angustifoliae-Ulmion laevis Golub in Golub et Kuzmina 1997

T14 - [G13] Mediterranean and Macaronesian riparian forest

- POP-01A - Populion albae Br.-Bl. ex Tchou 1949
- =
- < POP-01A - Populion albae Br.-Bl. ex Tchou 1949
- POP-01B - Ligustro vulgaris-Alnion glutinosae Poldini, Sburlino et Venanzoni in Biondi et al. 2015
- =
- < POP-01B - Ligustro vulgaris-Alnion glutinosae Poldini, Sburlino et Venanzoni in Biondi et al. 2015
- POP-01C - Osmundo-Alnion glutinosae (Br.-Bl. et al. 1956) Dierschke et Rivas-Mart. in Rivas-Mart. 1975
- =
- < POP-01C - Osmundo-Alnion glutinosae (Br.-Bl. et al. 1956) Dierschke et Rivas-Mart. in Rivas-Mart. 1975

- POP-01D - Rhododendro pontici-Prunion lusitanicae Pérez Latorre, Galán de Mera et
= Cabezudo in Pérez Latorre et al. 1999
- < POP-01D - Rhododendro pontici-Prunion lusitanicae Pérez Latorre, Galán de Mera et
Cabezudo in Pérez Latorre et al. 1999
- POP-01E - Platanion orientalis I. Kárpáti et V. Kárpáti 1961
- =
- < POP-01E - Platanion orientalis I. Kárpáti et V. Kárpáti 1961
- POP-01F - Lauro nobilis-Fraxinion angustifoliae I. Kárpáti et V. Kárpáti 1961
- =
- < POP-01F - Lauro nobilis-Fraxinion angustifoliae I. Kárpáti et V. Kárpáti 1961
- PUR-03A - Salicion canariensis Rivas-Mart., Wildpret, Del Arco, O. Rodríguez, Pérez de Paz,
= García Gallo, Acebes, T.E. Díaz et Fernández-González ex Rivas-Mart. et al. 1999

T15 - [G14] Broadleaved swamp forest on non-acid peat

- = ALN-01A - Alnion glutinosae Malcuit 1929
- = ALN-01B - Frangulo alni-Fraxinion oxycarpae Poldini, Sburlino et Venanzoni in Biondi et al.
2015
- < ALN-01B - Frangulo alni-Fraxinion oxycarpae Poldini, Sburlino et Venanzoni in Biondi et al.
2015
- = ALN-02A - Salici pentandrae-Betulion pubescentis Clausnitzer in Dengler et al. 2004
- < ALN-02A - Salici pentandrae-Betulion pubescentis Clausnitzer in Dengler et al. 2004

T16 - [G15] Broadleaved mire forest on acid peat

- = ALN-03A - Betulion pubescentis Lohmeyer et Tx. ex Oberd. 1957

T17 - [G16a] Fagus forest on non-acid soils

- <> FAG-02A - Aremonio-Fagion (Horvat 1950) Borhidi in Török et al. 1989
- <> FAG-02B - Fagion sylvaticae Luquet 1926
- <> FAG-02C - Geranio striati-Fagion Gentile 1970
- <> FAG-06A - Fagion orientalis Soó 1964
- < FAG-06B - Dentario quinquefoliae-Fagion Didukh 1996

T18 - [G16b] Fagus forest on acid soils

- <> FAG-01A - Luzulo-Fagion sylvaticae Lohmeyer et Tx. in Tx. 1954
- < FAG-01B - Ilici-Fagion sylvaticae Br.-Bl. 1967
- < FAG-01C - Galio rotundifolii-Fagion Gamisans 1975

T19 - [G17a] Temperate and submediterranean thermophilous deciduous forest

- < PUB-01A - Quercion petraeae Issler 1931
- < PUB-01B - Quercion pubescenti-petraeae Br.-Bl. 1932 nom. mut.
- < PUB-01C - Aceri tatarici-Quercion Zólyomi 1957

- < PUB-01D - Lathyro pisiformis-Quercion roboris Solomeshch et Grigoriev in Willner et al. 2015
- < PUB-01E - Aceri granatensis-Quercion fagineae (Rivas Goday, Rigual et Rivas-Mart. 1960) Rivas-Mart. 1987
- < PUB-01F - Fraxino orni-Ostryion Tomažič 1940
- < PUB-01G - Carpinion orientalis Horvat 1958
- <> PUB-01H - Syringo-Carpinion orientalis Jakucs (1959) 1960
- < PUB-01I - Elytrigio nodosae-Quercion pubescentis Didukh 1996
- < PUB-01K - Physospermo-Quercion petraeae A.O. Horvát 1976
- < PUB-01L - Crataego laevigatae-Quercion cerridis Arrigoni 1997
- < PUB-01M - Pino calabricae-Quercion congestae S. Brullo et al. 1999
- < PUB-01N - Quercion confertae Horvat 1958
- < PUB-01O - Quercion petraeo-cerridis Lakušić et B. Jovanović in B. Jovanović et al. ex Čarni et Mucina 2015
- < PUB-01P - Melitto albidiae-Quercion Barbero et Quézel 1976

T1A - [G17b] Mediterranean thermophilous deciduous forest

- < PUB-01T - Quercion macrolepidis Zohary ex Di Pietro et al. ined.

T1B - [G18] Acidophilous Quercus forest

- < QUE-01A - Hymenophyllo-Quercion petraeae Pallas 2000
- <> QUE-01B - Quercion roboris Malcuit 1929
- < QUE-01C - Agrostio-Quercion petraeae Scamoni et Passarge 1959
- < QUE-01D - Quercion pyrenaicae Rivas Goday ex Rivas-Martínez 1965
- < QUE-01E - Castaneo-Quercion petraeae Soó 1964

T1C - [G19a] Temperate and boreal mountain Betula and Populus tremula forest on mineral soils

- <> BRA-01B - Veronico teucarii-Pinion sylvestris Ermakov et Solomeshch in Ermakov et al. 2000
- <> BRA-01C - Trollio europaei-Pinion sylvestris Fedorov in Ermakov et al. 2000
- < BRA-02A - Fragario vescae-Populion tremulae Willner et Mucina ined.
- < PIC-04B - Empetro hermaphroditi-Betulion pumilae Mucina, Willner et Grabherr ined.
- <> QUE-02B - Lonicero periclymeni-Betulion pubescentis Géhu 2006
- <> VIR-04A - Rhododendro caucasici-Betulion litwinowii Onipchenko 2002

T1D - [G19b] Southern European mountain Betula and Populus tremula forest on mineral soils

- < PIC-04A - Betulion carpatico-pubescentis Rivas-Mart. et M. Costa in Rivas-Mart. et al. 2002
- < QUE-02A - Betulion fontquerio-celtibericae Rivas-Mart. et M. Costa in Rivas-Mart. et al. 2002

T1E - [G1Aa] Carpinus and Quercus mesic deciduous forest

- <> FAG-03A - Carpinion betuli Issler 1931

- <> FAG-03B - Pulmonario longifoliae-Quercion roboris Rivas-Mart. et Izco in Rivas-Mart. et al. 2002
- < FAG-03C - Erythronio-Carpinion (Horvat 1958) Marinček in Wallnöfer et al. 1993
- < FAG-03D - Castaneo sativae-Carpinion orientalis Quézel, Barbero et Akman ex Quézel et al. 1993
- <> FAG-03E - Paeonio dauricae-Quercion petraeae Didukh 1996
- <> FAG-03E - Paeonio dauricae-Quercion petraeae Didukh 1996
- < FAG-03F - Querco roboris-Tilion cordatae Solomeshch et Laiviņš ex Bulokhov et Solomeshch in Bulokhov et Semenishchenkov 2015
- < FAG-03G - Scillo sibericae-Quercion roboris Onyshchenko 2009
- < FAG-03H - Aconito lycoctoni-Tilion cordatae Solomeshch et Grigoriev in Willner et al. 2016
- < FAG-04A - Crataego-Carpinion caucasicae Passarge 1981
- < FAG-04B - Astrantio-Carpinion caucasicae Passarge 1981

T1F - [G1Ab] Ravine forest

- <> FAG-05A - Tilio-Acerion Klika 1955
- < FAG-05B - Melico-Tilion platyphylli Passarge et G. Hofmann 1968
- < FAG-05C - Dryopterido affinis-Fraxinion excelsioris Vanden Berghen ex Bœuf et al. in Bœuf 2011
- < FAG-05D - Fraxino excelsioris-Acerion pseudoplatani P. Fukarek 1969
- < FAG-05E - Ostryo carpinifoliae-Tilion platyphylli (Košir et al. 2008) Čarni in Willner et al. 2016
- < FAG-05F - Tilio pseudorubrae-Ostryion carpinifoliae S. Brullo et al. 2001

T1G - [G1Ba] Alnus cordata forest

- <> FAG-02C - Geranio striati-Fagion Gentile 1970
- <> POP-02A - Alnion incanae Pawłowski et al. 1928
- <> PUB-01R - Lathyro veneti-Taxion baccatae Čarni et Mucina 2015

T1H - [G1C] Broadleaved deciduous plantation of non site-native trees

- < ROB-02B - Balloto nigrae-Robinion pseudoacaciae Hadač et Sofron 1980
- < ROB-02C - Chelidonio majoris-Robinion pseudoacaciae Hadač et Sofron ex Vítková in Chytrý 2013
- < ROB-02D - Euphorbio cyparissiae-Robinion pseudoacaciae Vítková in Kolbek et al. 2003

T21 - [G21] Mediterranean evergreen Quercus forest

- < QUI-01A - Quercion ilicis Br.-Bl. ex Molinier 1934
- < QUI-01B - Oleo sylvestris-Quercion rotundifoliae Barbero, Quézel et Rivas-Mart. in Rivas-Mart. et al. 1986 nom. invers. propos.
- < QUI-01C - Quercion broteroi Br.-Bl. et al. 1956 corr. Rivas-Mart. 1972
- <> QUI-01D - Fraxino orni-Quercion ilicis Biondi, Casavecchia et Gigante in Biondi et al. 2013
- < QUI-01E - Erico-Quercion ilicis S. Brullo et al. 1977

- < QUI-01G - Cyclamini cretici-Quercion ilicis Barbero et Quézel in Quézel et al. 1993
- < QUI-01H - Arbuto andrachnes-Quercion cocciferae Barbero et Quézel 1979
- < QUI-02A - Quercion calliprini Zohary 1955
- < QUI-02C - Quercion alnifoliae Barbero et Quézel ex Bergmeier, Mucina et Theurillat in Willner et al. 2015

T22 - [G22] Mainland laurophyllous forest

- < QUI-01I - Arbuto unedonis-Laurion nobilis Rivas-Mart. et al. 1999

T23 - [G23] Macaronesian laurophyllous forest

- < AZO-02A - Dryopterido azoricae-Laurion azoricae Rivas-Mart. et al. 2002
- < AZO-02B - Myrico fayae-Pittosporion undulati Lüpnitz 1976
- < LAU-02A - Ixantho viscosae-Laurion azoricae Oberd. ex Santos in Rivas-Mart. et al. 1977
- < LAU-02B - Sibthorpio peregrinae-Clethrion arborea Capelo et al. 2000
- < LAU-02C - Visneo mocanerae-Apollonion barbujae Rivas-Mart. in Capelo et al. 2000

T24 - [G24] Olea europaea-Ceratonia siliqua forest

- <> OLE-01A - Mayteno canariensis-Juniperion canariensis Santos et F. Galván ex Santos 1983 corr. Rivas-Mart. et al. 1993
- < OLE-01B - Retamion rhodorhizoidis Del Arco et al. 2009
- < OLE-01C - Oleo maderensis-Maytenion umbellatae Capelo et al. 2000
- <> QUI-04H - Oleo-Ceratonion siliquae Br.-Bl. ex Guinochet et Drouineau 1944
- <> QUI-04L - Ceratonio-Pistacion lentisci Zohary et Orshan 1959

T25 - [G25a] Phoenix theophrasti vegetation

- <> NER-01F - Rubo sancti-Nerion oleandri Brullo et al. 2004

T26 - [G25b] Phoenix canariensis vegetation

- < OLE-01D - Phoenicion canariensis Rivas-Mart. et Del Arco in Rivas-Mart. et al. 2011

T27 - [G26] Ilex aquifolium forest

- <> FAG-01A - Luzulo-Fagion sylvaticae Lohmeyer et Tx. in Tx. 1954
- <> FAG-02B - Fagion sylvaticae Luquet 1926
- <> FAG-03A - Carpinion betuli Issler 1931
- <> FAG-03B - Pulmonario longifoliae-Quercion roboris Rivas-Mart. et Izco in Rivas-Mart. et al. 2002
- <> QUE-01B - Quercion roboris Malcuit 1929
- <> QUI-01D - Fraxino orni-Quercion ilicis Biondi, Casavecchia et Gigante in Biondi et al. 2013

T28 - [G27] Macaronesian heathy forest

- <> AZO-01A - Juniperion brevifoliae Sjögren 1973

- <> LAU-01A - Myrico fayae-Ericion arboreae Oberd. 1965
- <> LAU-01B - Polysticho falcinelli-Ericion arboreae Rivas-Mart. et al. 2002
- < LAU-01E - Euphorbion melliferae Capelo et al. 2003

T29 - [G28] Broadleaved evergreen plantation of non site-native trees

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T2A - Broadleaved deciduous plantation of site-native trees

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T31 - [G31a] Temperate mountain Picea forest

- <> ASA-01A - Aconito septentrionalis-Piceion obovatae Solomeshch, Grigoriev, Khaziakhmetov et Baisheva in Martynenko et al. 2008
- < ERI-01D - Erico carnea-Piceion omorikae Mucina et Čarni all. nov.
- <> PIC-01A - Piceion excelsae Pawłowski et al. 1928
- <> PIC-02A - Aconito rubicundi-Abietion sibiricae Anenkhnov et Chytrý 1998
- <> PIC-06A - Chrysanthemo rotundifolii-Piceion (Krajina 1933) Březina et Hadač in Hadač 1962
- <> PIC-06B - Abieti-Piceion (Br.-Bl. in Br.-Bl. et al. 1939) Soó 1964

T32 - [G31b] Temperate mountain Abies forest

- <> ASA-01A - Aconito septentrionalis-Piceion obovatae Solomeshch, Grigoriev, Khaziakhmetov et Baisheva in Martynenko et al. 2008
- < FAG-01A - Luzulo-Fagion sylvaticae Lohmeyer et Tx. in Tx. 1954
- <> FAG-02A - Aconito rubicundi-Abietion sibiricae Anenkhnov et Chytrý 1998
- <> FAG-02B - Fagion sylvaticae Luquet 1926
- <> FAG-02C - Geranio striati-Fagion Gentile 1970
- <> FAG-06A - Fagion orientalis Soó 1964
- <> PIC-02A - Aconito rubicundi-Abietion sibiricae Anenkhnov et Chytrý 1998
- <> PIC-06A - Chrysanthemo rotundifolii-Piceion (Krajina 1933) Březina et Hadač in Hadač 1962
- <> PIC-06B - Abieti-Piceion (Br.-Bl. in Br.-Bl. et al. 1939) Soó 1964
- < PIC-06C - Calamagrostio-Abietion Horvat 1962 nom. invers. propos.

T33 - [G31c] Mediterranean mountain Abies forest

- <> FAG-02C - Geranio striati-Fagion Gentile 1970
- < PUB-01Q - Paeonio broteroi-Abietion pinsapo (Rivas-Mart. 1987) Rivas-Mart. et al. 2002
- < PUB-01S - Abietion cephalonicae Horvat et al. 1974

T34 - [G32] Temperate subalpine Larix, Pinus cembra and Pinus uncinata forest

- <> ERI-01A - Erico carnea-Pinion Br.-Bl. in Br.-Bl. et al. 1939 nom. invers. propos.
- <> PIC-01A - Piceion excelsae Pawłowski et al. 1928

- < PIC-06D - *Seslerio caeruleae*-*Pinion uncinatae* Vigo 1974

T35 - [G34a] Temperate continental *Pinus sylvestris* forest

- < BRA-01A - *Caragano fruticis*-*Pinion sylvestris* Solomeshch et al. 2002
- <> BRA-01B - *Veronico teucarii*-*Pinion sylvestris* Ermakov et Solomeshch in Ermakov et al. 2000
- <> BRA-01C - *Trollio europaei*-*Pinion sylvestris* Fedorov in Ermakov et al. 2000
- <> PIC-03A - *Dicrano*-*Pinion sylvestris* (Libbert 1933) W. Matuszkiewicz 1962 nom. conserv. propos.
- < PYR-01A - *Ononido rotundifoliae*-*Pinion sylvestris* Br.-Bl. 1950
- < PYR-02A - *Festuco*-*Pinion sylvestris* Passarge 1968
- < PYR-03A - *Koelerio glaucae*-*Pinion sylvestris* Ermakov 1999

T36 - [G34b] Temperate and submediterranean montane *Pinus sylvestris*-*Pinus nigra* forest

- <> ERI-01A - *Erico carneae*-*Pinion* Br.-Bl. in Br.-Bl. et al. 1939 nom. invers. propos.
- < ERI-01B - *Pulsatillo slavicae*-*Pinion* Fajmonová 1978
- < ERI-01C - *Seslerio rigidae*-*Pinion* Coldea ex Mucina et Čarni all. nov.
- < ERI-01E - *Fraxino orni*-*Pinion nigrae* Em 1978
- < ERI-01F - *Erico-Fraxinion orni* Horvat 1959 nom. invers. propos.
- < ERI-01G - *Chamaecytiso hirsuti*-*Pinion pallasianae* Barbero et Quézel 1976 nom. invers. propos.
- < ERI-02A - *Pinion pallasianae* Korzhenevsky 1998
- < ERI-02B - *Libanotido intermediae*-*Pinion sylvestris* Didukh 2003

T37 - [G34c] Mediterranean montane *Pinus sylvestris*-*Pinus nigra* forest

- < SAB-01A - *Junipero*-*Pinion sylvestris* Rivas Goday in Rivas Goday et Borja 1961 nom. invers. propos.
- < SAB-01C - *Junipero hemisphaericae*-*Pinion sylvestris* Rivas-Mart. 1983
- < SAB-01D - *Avenello ibericae*-*Pinion ibericae* Rivas-Mart. et J.A. Molina in Rivas-Mart. et al. 1999
- < SAB-03A - *Berberido aetnensis*-*Pinion laricionis* (S. Brullo et al. 2001) Mucina et Theurillat nom. nov.

T38 - [G36] Mediterranean and Balkan subalpine *Pinus heldreichii*-*Pinus peuce* forest

- < ERI-01H - *Pinion heldreichii* Horvat 1946
- < PIC-01B - *Pinion peucis* Horvat 1950

T39 - [G37] Mediterranean lowland to submontane *Pinus* forest

- < PUB-01J - *Campanulo sibiricae*-*Pinion brutiae* Litvinskaya et Postarnak ex Mucina all. nov.
- < QUI-01F - *Genisto pilosae*-*Pinion pinastri* Biondi et Vagge 2015
- <> QUI-03A - *Pistacio lentisci*-*Pinion halepensis* Biondi, Blasi, Galdenzi, Pesaresi et Vagge in Biondi et al. 2014

- < QUI-03B - *Alkanno baeoticae*-*Pinion halepensis* Mucina et Dimopoulos in Mucina et al. 2009
- < QUI-03C - *Salvio fruticosae*-*Pinion brutiae* Konstantinidis, Mucina et Bergmeier ined.
- <> QUI-03D - *Pinion pineae* Feinbrun 1959
- <> QUI-04F - *Pino pinastri*-*Juniperion phoeniceae* Pérez Latorre et Cabezudo in Pérez Latorre et al. 1998

T3A - [G38] *Pinus canariensis* forest

- < CAN-01A - *Cisto symphyfolii*-*Pinion canariensis* Rivas Goday et Esteve ex Esteve 1969

T3B - [G34d] Mediterranean montane *Cedrus* forest

- < PUB-02A - *Querco*-*Cedrion libani* Barbero et al. 1974

T3C - [G39a] *Taxus baccata* forest

- <> FAG-03A - *Carpinion betuli* Issler 1931
- <> FAG-05A - *Tilio*-*Acerion Klika* 1955
- <> PUB-01R - *Lathyro veneti*-*Taxion baccatae* Čarni et Mucina 2015

T3D - [G39b] Mediterranean *Cupressaceae* forest

- < QUI-02B - *Aceri sempervirentis*-*Cupression sempervirentis* Barbero et Quézel ex Quézel et al. 1993
- <> QUI-04F - *Pino pinastri*-*Juniperion phoeniceae* Pérez Latorre et Cabezudo in Pérez Latorre et al. 1998
- < QUI-04G - *Juniperion lagunae* Cano et al. 2007
- < QUI-04J - *Rhamno graecae*-*Juniperion lyciae* M. Costa et al. 1984
- < SAB-01B - *Juniperion thuriferae* Rivas-Mart. 1969
- < SAB-03B - *Juniperion excelso-foetidissimae* Em ex Matevski et al. 2010
- <> SAB-03C - *Jasmino*-*Juniperion excelsae* Didukh, Vakarenko et Shelyag-Sosonko ex Didukh 1996
- < SAB-03D - *Berberido creticae*-*Juniperion foetidissimae* S. Brullo et al. 2001

T3E - [G39c] Macaronesian *Juniperus* forest

- <> AZO-01A - *Juniperion brevifoliae* Sjögren 1973
- < CAN-01B - *Juniperion cedri* Martín Osorio, Wildpret et Rivas-Mart. in Martín Osorio et al. 2007
- <> OLE-01A - *Mayteno canariensis*-*Juniperion canariensis* Santos et F. Galván ex Santos 1983 corr. Rivas-Mart. et al. 1993

T3F - [G3A] Dark taiga

- <> PIC-01A - *Piceion excelsae* Pawłowski et al. 1928
- <> PIC-02A - *Aconito rubicundi*-*Abietion sibiricae* Anenkhonov et Chytrý 1998
- <> PIC-05A - *Empetro*-*Piceion obovatae* Morozova et al. 2008

T3G - [G3B] Pinus sylvestris light taiga

- <> PIC-03A - Dicrano-Pinion sylvestris (Libbert 1933) W. Matuszkiewicz 1962 nom. conserv. propos.
- < PIC-03B - Cladonio stellaris-Pinion sylvestris Kielland-Lund ex Ermakov et Morozova 2011

T3H - [G3C] Larix light taiga

- <> PIC-05A - Empetro-Piceion obovatae Morozova et al. 2008

T3J - [G3Da] Pinus and Larix mire forest

- < OXY-02B - Sphagnion medii Kästner et Flössner 1933
- < PIC-07A - Vaccinio uliginosi-Pinion sylvestris Passarge 1968

T3K - [G3Db] Picea mire forest

- < PIC-07B - Eriophoro-Piceion abietis Passarge 1968
- < PIC-08A - Calamagrostio canescentis-Piceion abietis Solomeshch in Willner et al. 2015

T3N - [G3F1] Coniferous plantation of site-native trees

-

T3M - [G3F2] Coniferous plantation of non site-native trees

-

T41 - [G56] Early-stage natural and semi-natural forest and regrowth

-

T42 - [G57] Coppice and early stage plantations

-

T43 - [G58] Recently felled areas

-

Explanation of the qualifiers

- = the type definitions are (more or less) equal
- < 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
- ↓ Type moved to another group

Appendix B: Formal definitions of the revised EUNIS grassland habitat types (Group E), heathland, scrub and tundra habitat types (Group F), and forest habitat types (Group G)

Species groups used in the formal definitions of habitat types

Abies alba

Abies alba

Adriatic-Genista

Genista hassertiana

Genista holopetala

Genista radiata

Alder-carr-species

Calamagrostis canescens

Carex acutiformis

Carex elata

Carex elongata

Carex paniculata

Carex pseudocyperus

Dryopteris carthusiana

Dryopteris carthusiana aggr.

Frangula alnus

Peucedanum palustre

Thelypteris palustris

Alnus

Alnus glutinosa

Alnus incana

Alnus cordata

Alnus cordata

Alpine-acidophilous-herbs

Agrostis nevadensis

Agrostis rupestris

Alopecurus gerardi

Androsace carnea

Androsace obtusifolia

Anemonastrum narcissiflorum

Armeria alpina

Astrantia minor

Bupleurum stellatum

Campanula alpina

Campanula herminii
Campanula scheuchzeri
Carex curvula
Carex fimbriata
Centaurea uniflora
Crepis conyzifolia
Crocus carpetanus
Crocus sieberi
Crocus veluchensis
Dianthus glacialis
Dianthus microlepis
Dianthus scardicus
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 scabriculumis
Festuca varia
Galium cespitosum
Gentiana acaulis
Gentiana alpina
Gentiana boryi
Gentiana brachyphylla
Gentiana punctata
Gentiana pyrenaica
Geum montanum
Juncus jacquinii
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
Scleranthus uncinatus
Sesleria comosa
Silene flos-jovis
Silene radicata
Silene vallesia
Silene waldsteinii
Soldanella alpina
Soldanella carpatica
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 tragus
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
Ochrolechia frigida
Racomitrium lanuginosum
Sphaerophorus globosus
Stereocaulon paschale
Tetralophozia setiformis
Thamnolia vermicularis

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 serpillifolia

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

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

B14a-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

B14b-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
Malcolmia triloba
Maresia nana
Ononis angustifolia
Ononis tournefortii
Polycarpaea nivea
Traganum moquinii

B14c-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 uechtritizianum
Linum tauricum
Marrubium peregrinum
Silene euxina
Silene thymifolia
Verbascum purpureum

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
Lysimachia vulgaris
Molinia caerulea aggr.
Myrica gale
Polytrichum commune
Vaccinium oxycoccos
Vaccinium uliginosum

Bog-Pinus

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

Bog-herbs

Andromeda polifolia
Chamaedaphne calyculata
Drosera rotundifolia
Eriophorum angustifolium
Eriophorum vaginatum
Rhododendron tomentosum
Rubus chamaemorus
Vaccinium oxycoccos
Vaccinium uliginosum

Boreo-temperate-mountain-Betula

Betula pubescens var. glabrata
Betula litwinowii
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

Canary-Island-xerophytic-scrub-species

Allagopappus canariensis
Anagyris latifolia
Androcymbium hierrense
Argyranthemum callichrysum
Argyranthemum coronopifolium
Argyranthemum escarrei
Argyranthemum gracile
Argyranthemum sundingii
Asparagus arborescens
Asparagus nesiotetes
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 osyrioides
Teucrium heterophyllum
Vicia cirrhosa

Castanea sativa
Castanea sativa

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
Alyssum wulfenianum subsp. *ovirense*
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 sardoa
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
Bupthalmum 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 bocconeii
Chiliadenus lopadusanus
Cichorium spinosum
Cistus oelandicus
Clinopodium alpinum
Clinopodium corsicum
Clinopodium serpyllifolium subsp. fruticosum
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 tinctoria subsp. ovata
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 subsp. bocconeii
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 tenuicolum
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 jacquini
Oxytropis lapponica
Oxytropis pilosa
Peganum harmala
Phagnalon rupestre
Phagnalon saxatile
Phagnalon sordidum
Phyla canescens
Phyla nodiflora
Phyllolepidum cyclocarpum
Phyllolepidum cyclocarpum subsp. cyclocarpum
Pimpinella tragium
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 dasyphyllum
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 ambiguus subsp. *gibbosus*
Senecio squalidus subsp. *aethnensis*
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 subsp. lanceolatum
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

Continental-inland-salt-steppe-specialists

Eremopyrum orientale
Eremopyrum triticeum
Limonium gmelinii
Petrosimonia brachiata
Petrosimonia oppositifolia
Puccinellia festuciformis
Salicornia perennans
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
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
Triticum aestivum
Triticum turgidum
Vicia ervilia
Vicia faba
X-Triticosecale species
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

Dwarf-shrubs

Antirrhinum latifolium
Antirrhinum siculum
Arctostaphylos alpinus
Arctostaphylos uva-ursi
Asparagus aphyllus
Astracantha caspica
Astracantha caucasica
Astracantha condensata
Astracantha cretica
Astracantha echinus
Astracantha nebrodensis
Astracantha parnassi subsp. cyllenea
Astracantha parnassi subsp. parnassi
Astracantha erinacea
Astracantha rumelica
Astracantha sicula
Astracantha thracica
Astragalus sempervirens
Astragalus sirinicus
Ballota frutescens
Ballota hispanica
Ballota pseudodictamnus
Bruckenthalia spiculifolia
Calluna vulgaris
Camphorosma monspeliaca
Cassiope hypnoides
Cassiope tetragona
Centaurea horrida

Cephalaria squamiflora
Chamaedaphne calyculata
Cistus palhinhae
Convolvulus cneorum
Convolvulus oleifolius
Coronilla valentina
Daboecia azorica
Daboecia cantabrica
Daphne alpina
Daphne arbuscula
Daphne oleoides
Diapensia lapponica
Dryas integrifolia
Dryas octopetala
Dryas punctata
Echinopartum horridum
Empetrum nigrum aggr.
Ephedra distachya
Erica carnea
Erica ciliaris
Erica cinerea
Erica erigena
Erica mackaiana
Erica maderensis
Erica tetralix
Erica vagans
Euphorbia paralias
Genista anglica
Genista aspalathoides
Genista ephedroides
Genista lydia
Genista micrantha
Genista pilosa
Genista salzmännii
Genista tridentata
Halimione portulacoides
Helianthemum lippii
Hypericum aegypticum
Krascheninnikovia ceratoides
Launaea fragilis
Lavandula angustifolia
Lavandula multifida
Lembotropis nigricans
Limoniastrum monopetalum
Linaria capraria
Loiseleuria procumbens
Lomelosia cretica

Odontites bocconeii
Phyllodoce caerulea
Prasium majus
Prunus prostrata
Ptilostemon gnaphaloides
Putoria calabrica
Rhamnus saxatilis
Rhododendron caucasicum
Rhododendron ferrugineum
Rhododendron hirsutum
Rhododendron lapponicum
Rhododendron myrtifolium
Rhododendron tomentosum
Rhodothamnus chamaecistus
Rosa gallica
Rosa spinosissima
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 serpyllifolia
Salix sphenophylla
Santolina corsica
Satureja cuneifolia
Satureja thymbra
Stachys glutinosa
Thymelaea dioica
Ulex gallii
Ulex minor
Vaccinium myrtillus
Vaccinium uliginosum
Vaccinium vitis-idaea

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

E11a-Pannonian-and-Pontic-sandy-steppe-specialists

Festuca beckeri
Festuca vaginata
Festuca wagneri

E11f-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
Diploaxis cretacea
Euphorbia petrophila
Jurinea arachnoidea
Koeleria talievii
Linum ucranicum
Polygala cretacea
Scrophularia cretacea
Silene cretacea
Silene supina
Thymus calcareus

E12b-Continental-dry-grassland-true-steppe-specialists

Artemisia pontica
Astragalus exscapus
Carex supina
Crambe tataria
Festuca valesiaca
Goniolimon besseranum
Goniolimon collinum
Goniolimon tataricum
Helictotrichon desertorum
Inula oculus-christi
Iris pumila
Jurinea mollis
Jurinea stoechadifolia

Koeleria brevis
Paeonia tenuifolia
Salvia aethiopsis
Salvia austriaca
Salvia nutans
Stipa anomala
Stipa capillata
Stipa dasyphylla
Stipa korshinskyi
Stipa pulcherrima
Stipa tirsia
Stipa ucrainica
Stipa zaleskii
Taraxacum serotinum

E13b-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
Stipa pauneroana
Trisetum velutinum

E15a-Iberian-oromediterranean-siliceous-dry-grassland-specialists

Agrostis tileni
Androsace rioxana
Armeria caespitosa
Armeria duriaei
Artemisia granatensis
Dianthus langeanus
Erigeron frigidus
Eryngium glaciale

Festuca clementei
Festuca indigesta
Festuca pseudeskia
Herniaria boissieri
Hormathophylla purpurea
Leucanthemopsis flaveola
Luzula caespitosa
Luzula spicata subsp. *nevadensis*
Pilosella vahlii
Potentilla nevadensis
Sideritis glacialis
Silene ciliata
Teesdalia conferta
Trisetum glaciale

E15b-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

E15c-Cyrno-Sardean-oromediterranean-siliceous-dry-grassland-specialists

Armeria multiceps
Armeria sardoa
Cerastium soleirolii
Festuca morisiana
Pilosella soleiroliana

E15d-Balkan-and-Anatolian-oromediterranean-dry-grassland-specialists

Beta nana
Corydalis blanda subsp. *parnassica*
Herniaria parnassica
Poa pumila
Ranunculus sartorianus
Trifolium heldreichianum

Trifolium parnassii

E15e-Madeiran-oromediterranean-siliceous-dry-grassland-specialists

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

E18-Open-Iberian-supramediterranean-dry-acid-and-neutral-grassland-specialists

Arenaria armerina
Armeria caballeroi
Armeria ciliata
Armeria eriophylla
Armeria langei
Armeria merinoi
Armeria trachyphylla
Armeria transmontana
Bufonia macropetala
Centaurea borjae
Centaurea toletana
Dianthus laricifolius
Erodium foetidum
Erysimum nevadense aggr.
Festuca brigantina
Festuca gredensis
Festuca longiauriculata
Festuca rivas-martinezii
Festuca summilusitana
Herniaria scabrida
Leucanthemopsis pallida
Leucanthemopsis pulverulenta
Ornithogalum concinnum
Ortegia hispanica
Pilosella castellana
Reseda virgata
Sagina merinoi
Silene legionensis
Thymus bracteatus

E19b-Inland-sanddrift-and-dune-with-siliceous-grassland-specialists

Carex arenaria
Corynephorus canescens

E1B-Heavy-metal-grassland-in-Western-and-Central-Europe-specialists

Armeria alpina subsp. *halleri*
Festuca ovina subsp. *ophiolicola*
Thlaspi caerulescens subsp. *calaminare*
Viola calaminaria
Viola guestphalica

E23-Mountain-hay-meadow-specialists

Arabidopsis halleri
Astrantia major
Bistorta vivipara
Cirsium heterophyllum
Crepis pyrenaica
Crocus vernus
Geranium sylvaticum aggr.
Knautia nevadensis
Meum athamanticum
Muscari botryoides
Narcissus poeticus
Phleum alpinum aggr.
Phyteuma halleri
Phyteuma spicatum
Pimpinella serbica
Poa chaixii
Rhinanthus mediterraneus
Viola cornuta

E24-Iberian-summer-pasture-vallicar-specialists

Agrostis castellana
Anthoxanthum ovatum
Celtica gigantea
Festuca ampla
Festuca elegans
Holcus annuus
Molineriella minuta
Periballia involucreta

E31a-Mediterranean-tall-humid-inland-grassland-specialists

Carex mairei
Cirsium monspessulanum
Cirsium pyrenaicum
Cochlearia glastifolia
Cochlearia megalosperma
Cyperus eragrostis
Dittrichia viscosa
Dorycnium hirsutum
Dorycnium rectum

Euphorbia hirsuta
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

E32a-Mediterranean-short-moist-grassland-of-lowlands-specialists

Deschampsia media
Jasonia tuberosa
Leontodon hirtus
Prunella hyssopifolia

E32b-Mediterranean-short-moist-grassland-of-mountains-specialists

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

E33-Submediterranean-moist-meadow-specialists

Alopecurus rendlei
Bellevia romana
Colchicum lusitanum
Crepis setosa
Moenchia mantica
Oenanthe peucedanifolia
Ornithogalum collinum

Ranunculus marginatus
Ranunculus velutinus
Scilla litardierei
Trifolium cinctum
Trifolium pallidum
Trifolium resupinatum

E41-Snow-bed-vegetation-specialists

Achillea clusiana
Achillea lingulata
Alchemilla fissa
Alchemilla pentaphyllea
Alchemilla subsericea
Arabis caerulea
Carex norvegica
Dianthus microlepis
Gnaphalium hoppeanum
Ranunculus crenatus
Ranunculus glacialis
Ranunculus nivalis
Ranunculus pygmaeus
Ranunculus sulphureus
Salix herbacea
Salix polaris
Saxifraga androsacea
Saxifraga cernua
Saxifraga oppositifolia
Sibbaldia procumbens
Soldanella alpina
Soldanella carpatica
Soldanella minima

E43a-Boreal-and-arctic-acidophilous-alpine-grassland-specialists

Alchemilla glomerulans
Cassiope hypnoides
Vahlodea atropurpurea

E43b-Temperate-acidophilous-alpine-grassland-specialists

Agrostis rupestris
Androsace carnea
Bellardiochloa variegata
Campanula alpina
Campanula scheuchzeri
Carex curvula
Carex foetida
Festuca airoides
Festuca eskia

Gentiana alpina
Geum montanum
Helictochloa versicolor
Luzula pediformis
Minuartia recurva
Oreochloa disticha
Scorzoneroides cantabrica
Scorzoneroides pyrenaica

E44a-Arctic-alpine-calcareous-grassland-specialists

Achillea clavennae
Androsace chamaejasme
Androsace villosa
Androsace vitaliana
Astragalus alpinus
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
Kobresia myosuroides
Kobresia simpliciuscula
Leontopodium nivale
Myosotis alpestris
Oxytropis campestris
Oxytropis halleri
Pulsatilla alpina
Ranunculus thora
Rhinanthus gracilis
Saussurea alpina
Saxifraga caesia
Sesleria coerulans

Stachys alopecuroides
Thesium alpinum
Veronica aphylla

E44b-Alpine-and-subalpine-calcareous-grassland-of-the-Balkans-and-Appennines-specialists

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

E52a-Thermophilous-woodland-fringe-of-base-rich-soils-specialists

Aegonychon purpurocaeruleum
Dictamnus albus
Geranium sanguineum
Iris variegata
Melampyrum cristatum
Melittis melissophyllum
Origanum vulgare
Paeonia mascula
Paeonia officinalis
Peucedanum cervaria
Polygonatum odoratum
Tanacetum corymbosum
Trifolium medium
Vicia dumetorum
Vicia pisiformis
Vicia sylvatica
Vincetoxicum hirundinaria

E52b-Woodland-fringe-of-acidic-nutrient-poor-soils-specialists

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

E52c-Macaronesian-thermophilous-woodland-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

Erico-Pinetea-species

Amelanchier ovalis
Aremonia agrimonoides
Buphthalmum salicifolium
Calamagrostis varia
Carduus defloratus aggr.
Carex alba
Carex ornithopoda
Clinopodium alpinum
Coronilla vaginalis
Daphne cneorum
Daphne oleoides
Epipactis atrorubens
Erica carnea
Eryngium amethystinum
Festuca amethystina
Galium anisophyllum
Galium austriacum
Galium lucidum
Globularia cordifolia
Hieracium bifidum
Hippocrepis emerus
Laserpitium latifolium
Laserpitium siler
Leontodon incanus
Noccaea montana
Polygala amara
Polygala chamaebuxus
Polygala nicaeensis aggr.
Rhamnus saxatilis
Scabiosa lucida

Sesleria robusta
Sorbus aria aggr.
Teucrium montanum
Thesium alpinum
Thymus longicaulis

Fagus-sylvatica-orientalis
Fagus sylvatica
Fagus orientalis

Floodplain-hardwood-trees
Fraxinus angustifolia
Fraxinus excelsior
Fraxinus pallisiae
Quercus robur
Ulmus laevis
Ulmus minor

Forest-clearing-trees-and-shrubs
Salix caprea
Sambucus racemosa
Sorbus aucuparia

Fraxinus excelsior
Fraxinus excelsior

Garrigue-and-micro-garrigue-species
Alyssoides utriculata
Alyssum diffusum
Aphyllanthes monspeliensis
Arenaria arcuatociliata
Arenaria vitoriana
Armeria sardea
Artemisia alba
Asperula purpurea
Astragalus clusianus
Camphorosma monspeliaca
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 salzmannii
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 pungens subsp. *javalambrensis*

Sideritis pungens subsp. pungens
Sideritis syriaca
Staehelina dubia
Teucrium aragonense
Teucrium expassum
Teucrium leonis
Teucrium luteum subsp. contortostylum
Teucrium montanum
Teucrium polium aggr.
Teucrium similitum
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 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
Koeleria castellana
Launaea pumila
Lepidium subulatum
Ononis tridentata
Reseda stricta
Reseda suffruticosa
Reaumuria vermiculata
Rosmarinus eriocalyx
Santolina viscosa
Teucrium balthazaris
Teucrium carolipau 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

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 purpureocaeruleum
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 subsp. *brigantiaca*
Androsace adfinis subsp. *puberula*
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 serpillifolia subsp. nivalis
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 adiantum-nigrum subsp. onopteris
Asplenium adiantum-nigrum subsp. serpentine
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 subsp. laevigatus
Aster novi-belgii x lanceolatus
Aster vimineus
Aster x salignus
Astragalus alopecurus
Astragalus alpinus
Astragalus aquilanus
Astragalus australis
Astragalus caprinus subsp. huetii
Astragalus centralpinus
Astragalus cicer
Astragalus danicus
Astragalus depressus
Astragalus exscapus
Astragalus frigidus
Astragalus hypoglottis subsp. 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*
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.
Bromus erectus subsp. stenophyllus
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 pratensis subsp. granulosa
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 litigosus
Carduus macrocephalus
Carduus nutans
Carduus personata
Carduus pycnocephalus
Carduus tenuiflorus
Carex appropinquata
Carex atrata
Carex baldensis
Carex bohémica
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 subsp. macrostachys
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 nigra subsp. juncella
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 involuocrata
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 ambigua subsp. laciniata
Centaurea aplolepa
Centaurea aspera
Centaurea calcitrapa
Centaurea cana
Centaurea centauroides
Centaurea cineraria
Centaurea collina
Centaurea cristata
Centaurea deusta
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 parlatoris subsp. tenorei
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
Centaureum erythraea
Centaureum littorale
Cephalaria alpina
Cephalaria leucantha
Cerastium alpinum
Cerastium arvense
Cerastium fontanum
Cerastium fontanum subsp. lucorum
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 jacquini
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 thomasi
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 ferrugineus subsp. vulturius
Dianthus furcatus
Dianthus glacialis
Dianthus monspessulanus
Dianthus monspessulanus subsp. marsicus
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
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 tricuspidatum
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
Erysimum sylvestre subsp. aurantiacum
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 subsp. costei

Festuca bosniaca
Festuca caerulescens
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 jeanpertii
Festuca laevigata
Festuca macranthera
Festuca marginata subsp. *andres-molinae*
Festuca marginata subsp. *gallica*
Festuca melanopsis
Festuca morisiana
Festuca nigrescens
Festuca nitida
Festuca norica
Festuca ovina
Festuca picturata
Festuca pignattiorum
Festuca pseudodura
Festuca quadriflora
Festuca robustifolia
Festuca rubra
Festuca sardoa
Festuca scabriculumis
Festuca stenantha
Festuca stricta subsp. *sulcata*
Festuca stricta subsp. *trachyphylla*
Festuca sylvatica
Festuca ticinensis
Festuca trichophylla
Festuca valesiaca
Festuca varia
Festuca violacea
Fibigia clypeata
Filipendula ulmaria

Filipendula vulgaris
Foeniculum vulgare
Fourraea alpina
Galatella linosyris
Galatella sedifolia
Galega officinalis
Galium aetnium
Galium aristatum
Galium austriacum
Galium baldense
Galium bernardii
Galium boreale
Galium congestum
Galium corrudifolium
Galium corsicum
Galium debile
Galium elongatum
Galium erythrorrhizon
Galium glaucophyllum
Galium glaucum
Galium intermedium
Galium jussiei
Galium laevigatum
Galium litorale
Galium lucidum
Galium lucidum subsp. cinereum
Galium magellense
Galium margaritaceum
Galium megalospermum
Galium mollugo aggr.
Galium montis-arerae
Galium noricum
Galium obliquum
Galium palustre
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 rivulare
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 subsp. lactucella
Hieracium lactucella subsp. magnaauricula
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 perfoliatum
Hypericum perforatum
Hypericum pubescens
Hypericum richeri
Hypericum spruneri
Hypericum tetrapterum
Hypericum tomentosum
Hypericum triquetrifolium
Hypochaeris robertia
Iberis aurosica subsp. nana
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 acutus subsp. acutus
Juncus conglomeratus
Juncus effusus
Juncus inflexus
Juncus inflexus subsp. 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 subsp. occidentalis
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 subsp. ceratophylloides
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 oleifolium
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
Luzula forsteri
Luzula glabrata
Luzula lutea
Luzula luzulina
Luzula luzuloides
Luzula multiflora
Luzula nivea
Luzula pedemontana
Luzula pediformis
Luzula pilosa
Luzula pindica
Luzula spicata
Luzula sudetica
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
Matthiola sinuata subsp. ligurica
Medicago carstiensis
Medicago pironae
Medicago prostrata
Medicago sativa
Megathyrsus bionanus
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
Morsia monanthos
Muhlenbergia frondosa
Muhlenbergia schreberi
Murbeckiella pinnatifida
Murbeckiella zanonii
Mutellina corsica
Myosotis alpestris
Myosotis corsicana
Myosotis decumbens
Myosotis nemorosa
Myosotis scorpioides
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 subsp. humilis
Onobrychis montana
Onobrychis supina
Onobrychis viciifolia
Ononis natrix
Ononis pusilla
Ononis rotundifolia
Onopordum acanthium
Onopordum argolicum
Onopordum illyricum
Onopordum illyricum subsp. horridum
Onopordum tauricum
Onosma visianii
Oplismenus hirtellus subsp. undulatifolius
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
Petagnaea 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
Picnomon 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 subsp. *reichenbachiana*
Pinguicula vulgaris
Piptatherum coerulescens
Piptatherum miliaceum
Piptatherum virescens
Plantago alpina
Plantago altissima
Plantago argentea
Plantago atrata
Plantago crassifolia
Plantago holosteum
Plantago lanceolata
Plantago major
Plantago maritima
Plantago maritima subsp. *serpentina*
Plantago media
Plantago serraria
Pleurospermum austriacum
Poa alpina
Poa badensis
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 laciniatum subsp. decumbens
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 oxyspermum subsp. robertii
Polygonum raii
Polypodium cambricum
Polypodium interjectum
Polypodium serratum
Polypodium vulgare
Polypogon viridis
Potentilla alba
Potentilla anglica
Potentilla argentea
Potentilla argentea subsp. impolita
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 heptaphylla subsp. australis
Potentilla hirta
Potentilla inclinata
Potentilla indica
Potentilla intermedia
Potentilla micrantha
Potentilla multifida
Potentilla nivea
Potentilla pensylvanica
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 auricula subsp. bauhini
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 vallarsae
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 coll.
Ranunculus bilobus
Ranunculus binatus
Ranunculus breyninus
Ranunculus brutius
Ranunculus bulbosus
Ranunculus bullatus
Ranunculus carinthiacus

Ranunculus cassubicus
Ranunculus chaerophyllos
Ranunculus clethraphilus
Ranunculus cordiger
Ranunculus crenatus
Ranunculus fallax
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 polyanthemos subsp. nemorosus
Ranunculus polyanthemos subsp. polyanthemoides
Ranunculus polyanthemos subsp. polyanthemophyllus
Ranunculus polyanthemos subsp. serpens
Ranunculus polyanthemos subsp. thomasii
Ranunculus pratensis
Ranunculus pygmaeus
Ranunculus pyrenaeus
Ranunculus rupestris
Ranunculus seguieri
Ranunculus serbicus
Ranunculus serpens subsp. polyanthemoides
Ranunculus spicatus
Ranunculus velutinus
Ranunculus venetus
Rapistrum perenne
Ratibida pinnata
Reichardia picroides
Reseda lutea
Reseda luteola
Rhaponticoides africana
Rhaponticoides alpina
Rhaponticoides centaurium

Rhaponticum coniferum
Rhaponticum scariosum subsp. rhaponticum
Rhizobotrya alpina
Rhynchocorys 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 thyrsoflorus
Rumex thyrsoides
Sagina glabra
Sagina nodosa
Sagina pilifera
Sagina procumbens
Sagina saginoides
Sagina subulata
Salvia aethiopsis
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 moschata subsp. allionii
Saxifraga muscoides
Saxifraga mutata
Saxifraga paniculata
Saxifraga paniculata subsp. stabiana
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
Scleranthus perennis subsp. burnatii
Scolymus grandiflorus
Scolymus hispanicus
Scopolia carniolica
Scorzonera aristata
Scorzonera austriaca
Scorzonera callosa
Scorzonera glastifolia
Scorzonera hirsuta
Scorzonera hispanica
Scorzonera humilis
Scorzonera humilis subsp. tenuifolia
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
Scutellaria rubicunda subsp. linnaeana

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 subsp. ovirensis
Senecio persoonii
Senecio scopolii
Senecio squalidus subsp. rupestris
Serratula cichoracea
Serratula tinctoria
Sesamoides purpurascens
Seseli annum
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 auriculata subsp. lanuginosa
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
Solenanthes 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 letourneuxii subsp. letourneuxii
Stipa neesiana
Stipa offneri
Stipa pellita
Stipa pennata
Stipa pulcherrima
Stipa sicula
Stipa tirsia
Stipa trichotoma
Succisa pratensis
Succisella inflexa
Swertia perennis

Symphyotrichum lanceolatum
Symphyotrichum novae-angliae
Symphyotrichum novi-belgii
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 sommieri
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 bivonae
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 merxmuelleri
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 subsp. venetum
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-to-alpine-heath-shrubs
Arctostaphylos uva-ursi
Bruckenthalia spiculifolia
Calluna vulgaris
Empetrum nigrum aggr.
Genista pilosa
Vaccinium myrtillus
Vaccinium uliginosum
Vaccinium vitis-idaea

Macaronesian-coastal-dune-scrub
Polycarpaea 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 caespitius
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 var. multiflora
Sideroxylon mirmulans
Teucrium heterophyllum

Mainland-laurophyllous

Laurus nobilis
Morella faya
Prunus lusitanica subsp. lusitanica

Mediterranean-Abies

Abies borisii-regis
Abies cephalonica
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
Salsola vermiculata
Salsola tetrandra
Salsola divaricata
Salsola carpatha
Salsola aegaea
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 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-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
Myrtus communis
Phillyrea angustifolia
Phillyrea latifolia
Pistacia terebinthus
Rhamnus alaternus
Rhamnus lycioides
Rosa sempervirens
Styrax officinalis
Teucrium fruticans
Viburnum tinus

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
Cupressus sempervirens
Cupressus species
Diospyros lotus
Elaeagnus angustifolia
Elaeagnus species
Fagus species
Fagus sylvatica
Fraxinus angustifolia
Fraxinus excelsior
Fraxinus ornus

Fraxinus pallisae
Fraxinus species
Ilex aquifolium
Ilex canariensis
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 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 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
Salix x fragilis
Sorbus anglica
Sorbus aria aggr.

Sorbus aucuparia
Sorbus bohemica
Sorbus borbasii
Sorbus carpatica
Sorbus dacica
Sorbus domestica
Sorbus hardeggensis
Sorbus hibernica
Sorbus intermedia
Sorbus latifolia
Sorbus pannonica
Sorbus pekarovae
Sorbus querna
Sorbus portae-bohemicae
Sorbus rhodanthera
Sorbus roopiana
Sorbus slovenica
Sorbus sudetica
Sorbus torminalis
Sorbus umbellata
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
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 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 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 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 rhaetica
Populus tremula
Taxus species
Taxus baccata
Tetraclinis species
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 species
Fagus sylvatica
Fraxinus angustifolia
Fraxinus excelsior
Fraxinus ornus
Fraxinus pallisae
Fraxinus species

Ilex aquifolium
Ilex canariensis
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 dasycarpa
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 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 rhaetica
Pistacia atlantica
Platanus orientalis
Platanus species
Platycladus 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
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 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 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
Salix x fragilis
Sorbus anglica
Sorbus aria aggr.
Sorbus aucuparia
Sorbus bohemica
Sorbus borbasii
Sorbus carpatica
Sorbus dacica
Sorbus domestica
Sorbus hardeggensis
Sorbus hibernica
Sorbus hybrida aggr.
Sorbus intermedia
Sorbus latifolia
Sorbus pannonica
Sorbus pekarovae
Sorbus portae-bohemicae
Sorbus quercea
Sorbus rhodanthera
Sorbus roopiana
Sorbus slovenica
Sorbus sudetica
Sorbus torminalis
Sorbus umbellata

Taxus baccata
Taxus species
Tilia cordata
Tilia platyphyllos
Tilia species
Tilia tomentosa
Tilia x vulgaris
Ulmus glabra
Ulmus laevis
Ulmus minor
Ulmus procera
Ulmus species
Zelkova abelicea

Noble-hardwood-trees-generalists

Acer platanoides
Tilia cordata

Noble-hardwood-trees-ravine-specialists

Acer opalus aggr.
Acer pseudoplatanus
Fraxinus excelsior
Tilia platyphyllos
Ulmus glabra

Non-native-broadleaf-deciduous-trees

Acer negundo
Acer saccharinum
Aesculus carnea
Ailanthus altissima
Catalpa bignonioides
Celtis occidentalis
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
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 melanoxylon
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

Chamaecyparis lawsoniana
Chamaecyparis pisifera
Chamaecyparis species
Cupressus macrocarpa
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
Platycladus 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 melanoxylon
Acacia saligna
Acer negundo
Acer saccharinum
Aesculus carnea
Ailanthus altissima
Araucaria araucana
Catalpa bignonioides
Celtis occidentalis
Chamaecyparis lawsoniana
Chamaecyparis pisifera
Chamaecyparis species

Cupressus macrocarpa
Eucalyptus camaldulensis
Eucalyptus globulus
Eucalyptus robustus
Eucalyptus species
Fagus sylvatica (cult.)
Fraxinus americana
Fraxinus pennsylvanica
Gleditsia triacanthos
Juglans cinerea
Juglans mandshurica
Juglans nigra
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
Platyclusus orientalis
Populus balsamifera
Populus carolinensis
Populus laurifolia
Populus nigra cv. 'Italica'
Populus simonii
Populus suaveolens
Populus tremuloides
Populus trichocarpa
Populus x canadensis
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

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

Argyrobium 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
Thymbra capitata
Thymelaea hirsuta
Thymelaea tartonraira

Phrygana-shrubs

Alhagi maurorum
Euphorbia acanthothamnus
Genista acanthoclada
Genista fasselata
Lithodora hispidula
Onosma fruticosa
Sarcopoterium spinosum
Verbascum spinosum

Picea

Picea abies
Picea obovata
Picea omorika

Picea orientalis

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

Quercus coccifera
Quercus coccifera

Quercus ithaburensis
Quercus ithaburensis

Quercus petraea-pyrenaica-robur
Quercus petraea
Quercus pyrenaica
Quercus robur

Raised-bog-Sphagnum

Sphagnum angustifolium
Sphagnum capillifolium
Sphagnum fallax
Sphagnum fallax + S. flexuosum + S. angustifolium
Sphagnum flexuosum
Sphagnum fuscum
Sphagnum magellanicum
Sphagnum recurvum
Sphagnum recurvum aggr.
Sphagnum rubellum
Sphagnum russowii

Ravine-forest-specialists

Aruncus dioicus
Asplenium scolopendrium
Asplenium trichomanes
Cystopteris fragilis
Gymnocarpium dryopteris
Lunaria rediviva
Polypodium cambricum
Polypodium interjectum
Polypodium vulgare
Polystichum aculeatum
Scrophularia vernalis

Sclerophyllous-tree-Quercus

Quercus crenata
Quercus ilex
Quercus rotundifolia
Quercus suber

Semi-desert-riparian-shrubs

Alhagi maurorum
Halimodendron halodendron
Karelinia caspia
Tamarix arceuthoides
Tamarix elongata
Tamarix hispida
Tamarix kotschy
Tamarix laxa
Tamarix mascatensis
Tamarix octandra
Tamarix tetragyna

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

Agriophyllum squarrosum
Agropyron fragile
Alyssum turkestanicum
Artemisia arenaria
Ceratocarpus arenarius
Corispermum aralocaspicum
Eremopyrum triticeum
Leymus racemosus
Peganum harmala
Salsola tragus

Shrubs

Acacia mearnsii
Acacia pycnantha
Acacia retinodes
Acacia saligna
Adenocarpus anisochilus
Adenocarpus complicatus
Adenocarpus decorticans
Adenocarpus hispanicus
Adenocarpus telonensis
Adenocarpus viscosus
Alhagi maurorum
Alnus viridis
Alnus viridis subsp. fruticosa
Amelanchier species
Amelanchier canadensis
Amelanchier laevis
Amelanchier lamarckii
Amelanchier ovalis
Amelanchier spicata
Amorpha fruticosa
Anagyris foetida
Anthyllis barba-jovis
Arbutus andrachne
Arbutus unedo
Aronia species
Aronia x prunifolia
Artemisia arborescens
Asparagus acutifolius
Baccharis halimifolia
Berberis aetnensis
Berberis cretica
Berberis thunbergii
Berberis vulgaris
Betula humilis
Betula nana

Broussonetia papyrifera
Buddleja davidii
Bupleurum fruticosum
Buxus species
Buxus balearica
Buxus sempervirens
Calicotome spinosa
Calicotome villosa
Caragana species
Caragana arborescens
Caragana frutex
Caragana grandiflora
Caragana pygmaea
Caragana scythica
Caragana stenophylla
Ceratonia siliqua
Cestrum parqui
Chaenomeles japonica
Chamaerops humilis
Cistus calycinus
Cistus ocymoides
Cneorum tricoccon
Colutea arborescens
Colutea armena
Colutea atlantica
Colutea cilicica
Colutea hispanica
Colutea istria
Colutea melanocalyx
Coriaria myrtifolia
Cornus species
Cornus alba
Cornus mas
Cornus sanguinea
Cornus sericea
Coronilla juncea
Coronilla valentina
Corylus species
Corylus avellana
Cotinus coggygria
Cotoneaster species
Cotoneaster acuminatus
Cotoneaster bullatus
Cotoneaster cinnabarinus
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 tomentosus
Cotoneaster x matrensis
Crataegus species
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 x media
Cydonia oblonga
Cytisophyllum sessilifolium
Cytisus Xpraecox
Cytisus arboreus
Cytisus ardoinii
Cytisus cantabricus
Cytisus commutatus
Cytisus grandiflorus
Cytisus multiflorus
Cytisus procumbens
Cytisus reverchonii
Cytisus scoparius
Cytisus striatus
Cytisus supranubius

Cytisus tommasinii
Cytisus villosus
Cytisus x praecox
Daphne alpina
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
Elaeagnus commutata
Ephedra foeminea
Ephedra fragilis
Ephedra major
Erica arborea
Erica australis
Erica lusitanica
Erica scoparia
Erica umbellata
Euonymus species
Euonymus europaeus
Euonymus japonicus
Euonymus latifolius
Euonymus nanus
Euonymus verrucosus
Euphorbia characias
Euphorbia dendroides
Euphorbia squamigera
Ficus carica
Flueggea tinctoria
Forsythia species
Forsythia europaea
Forsythia suspensa
Forsythia viridissima
Forsythia x intermedia
Frangula species
Frangula alnus
Frangula rupestris
Genista aetnensis
Genista cinerascens
Genista falcata

Genista florida
Genista hystrix
Genista linifolia
Genista monspessulana
Genista polyanthos
Genista sessilifolia
Genista spartioides
Genista tinctoria
Genista tournefortii
Genista triacanthos
Genista tridens
Genista valentina
Gomphocarpus fruticosus
Halimodendron halodendron
Hippocrepis emerus
Hippophae species
Hippophae rhamnoides
Hypericum androsaemum
Hypericum calycinum
Hypericum hircinum
Hypericum xylosteifolium
Ilex aquifolium
Ilex canariensis
Ilex colchica
Jasminum fruticans
Juniperus species
Juniperus chinensis
Juniperus communis subsp. communis
Juniperus communis subsp. nana
Juniperus oxycedrus
Juniperus phoenicea
Juniperus sabina
Juniperus virginiana
Karelinia caspia
Laburnum alpinum
Laburnum anagyroides
Lantana camara
Launaea arborescens
Laurus nobilis
Ligustrum species
Ligustrum japonicum
Ligustrum lucidum
Ligustrum ovalifolium
Ligustrum vulgare
Lonicera species
Lonicera alpigena
Lonicera arborea

Lonicera biflora
Lonicera caerulea
Lonicera caucasica
Lonicera formanekiana
Lonicera hellenica
Lonicera involucrata
Lonicera nigra
Lonicera nitida
Lonicera nummularifolia
Lonicera nummulariifolia
Lonicera pyrenaica
Lonicera splendida
Lonicera tatarica
Lonicera xylosteum
Lycium afrum
Lycium barbarum
Lycium chinense
Lycium europaeum
Lycium intricatum
Mahonia aquifolium
Malva arborea
Malva olbia
Malva subovata
Medicago arborea
Morella faya
Myoporum tenuifolium
Myrica species
Myrica gale
Myricaria germanica
Myrtus communis
Nerium oleander
Nicotiana glauca
Olea europaea
Osmanthus decorus
Osyris alba
Osyris lanceolata
Paliurus species
Paliurus spina-christi
Philadelphus species
Philadelphus coronarius
Philadelphus pubescens
Phillyrea species
Phillyrea angustifolia
Phillyrea latifolia
Physocarpus opulifolius
Pinus mugo
Pinus mugo aggr.

Pistacia lentiscus
Pistacia terebinthus
Polygonum equisetiforme
Polygonum scoparium
Potentilla parvifolia
Prunus cerasifera
Prunus fruticosa
Prunus laurocerasus
Prunus lusitanica
Prunus lusitanica subsp. *lusitanica*
Prunus mahaleb
Prunus padus subsp. *borealis*
Prunus persica
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 species
Pyrus cordata
Pyrus elaeagrifolia
Pyrus eleagrifolia subsp. *bulgarica*
Pyrus nivalis
Pyrus spinosa
Quercus coccifera
Quercus lusitanica
Rhamnus species
Rhamnus alaternus
Rhamnus alpina
Rhamnus cathartica
Rhamnus cornifolius
Rhamnus depressus
Rhamnus hirtellus
Rhamnus imeretinus
Rhamnus intermedius
Rhamnus kurdicus
Rhamnus libanoticus
Rhamnus ludovici-salvatoris
Rhamnus lycioides
Rhamnus microcarpus
Rhamnus myrtifolius

Rhamnus nitidus
Rhamnus orbiculatus
Rhamnus pallasii
Rhamnus pumilus
Rhamnus punctatus
Rhamnus pyrellus
Rhamnus rhodopeus
Rhamnus sibthorpianus
Rhamnus thymifolius
Rhamnus x colmeiroi
Rhododendron species
Rhododendron luteum
Rhododendron ponticum
Rhododendron smirnowii
Rhododendron ungerii
Rhus coriaria
Rhus typhina
Ribes species
Ribes alpinum
Ribes aureum
Ribes biebersteinii
Ribes cf. petraeum
Ribes multiflorum
Ribes nigrum
Ribes orientale
Ribes petraeum
Ribes rubrum aggr.
Ribes sanguineum
Ribes uva-crispa
Rosa species
Rosa abietina
Rosa acicularis
Rosa agrestis
Rosa agrestis x micrantha
Rosa arvensis
Rosa arvensis x sempervirens
Rosa balcarica
Rosa balsamica
Rosa boissieri
Rosa caesia
Rosa caesia aggr.
Rosa canina aggr.
Rosa canina f. litetiana
Rosa canina x deseglisei
Rosa canina x micrantha
Rosa caryophyllacea
Rosa donetzica

Rosa foetida
Rosa gallica
Rosa glabrifolia
Rosa glauca
Rosa gr. canina
Rosa heckeliana
Rosa inodora
Rosa majalis
Rosa marginata
Rosa marschalliana
Rosa micrantha
Rosa mollis
Rosa montana
Rosa moschata
Rosa multiflora
Rosa obtusifolia aggr.
Rosa pendulina
Rosa pouzinii
Rosa pulverulenta
Rosa rubiginosa
Rosa rubiginosa aggr.
Rosa rugosa
Rosa scabriuscula
Rosa sempervirens
Rosa serafinii
Rosa sherardii
Rosa spinosissima
Rosa squarrosa x canina
Rosa stylosa
Rosa subcanina
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 caspica
Salix cinerea
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 nummularia
Salix pedicellata
Salix pentandra
Salix phlebophylla
Salix phylicifolia
Salix phylicifolia 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
Sambucus species
Sambucus canadensis
Sambucus nigra
Sambucus racemosa
Sambucus sibirica
Searsia pentaphylla
Searsia tripartita
Sorbaria tomentosa
Sorbus chamaemespilus
Sorbus rupicola
Sorbus sambucifolia
Spartium junceum
Spiraea species
Spiraea alba
Spiraea cana
Spiraea cantoniensis
Spiraea chamaedryfolia
Spiraea crenata
Spiraea decumbens
Spiraea douglasii
Spiraea hypericifolia
Spiraea japonica
Spiraea media
Spiraea media subsp. media
Spiraea menziesii
Spiraea salicifolia
Spiraea tomentosa
Spiraea x billardii
Spiraea x vanhouttei
Staphylea pinnata
Styrax officinalis
Suaeda vera
Symphoricarpos species
Symphoricarpos albus
Syringa species
Syringa vulgaris
Tamarix species
Tamarix africana
Tamarix arceuthoides

Tamarix canariensis
Tamarix dalmatica
Tamarix elongata
Tamarix gallica
Tamarix gracilis
Tamarix hampeana
Tamarix hispida
Tamarix kotschy
Tamarix laxa
Tamarix octandra
Tamarix parviflora
Tamarix ramosissima
Tamarix smyrnensis
Tamarix tetragyna
Tamarix tetrandra
Teucrium fruticans
Ulex airensis
Ulex argenteus
Ulex boivinii
Ulex europaeus
Vaccinium arctostaphylos
Vaccinium corymbosum
Vaccinium macrocarpon
Viburnum species
Viburnum lantana
Viburnum opulus
Viburnum orientale
Viburnum tinus
Vitex agnus-castus
Weigela florida
Ziziphus jujuba
Zizyphus lotus

Softwood-riparian-trees

Populus alba
Populus nigra
Salix alba
Salix euxina
Salix x fragilis

Sphagnum

Sphagnum species
Sphagnum sect. Acutifolia
Sphagnum sect. Cuspidata
Sphagnum acutifolium
Sphagnum affine
Sphagnum amblyphyllum

Sphagnum angermanicum
Sphagnum angustifolium
Sphagnum annulatum
Sphagnum aongstroemii
Sphagnum apiculatum
Sphagnum auriculatum
Sphagnum austinii
Sphagnum balticum
Sphagnum bavaricum
Sphagnum brevifolium
Sphagnum capillifolium
Sphagnum centrale
Sphagnum cf. magellanicum
Sphagnum compactum
Sphagnum compactum + S. molle
Sphagnum contortum
Sphagnum crassicladium
Sphagnum cuspidatum
Sphagnum cymbifolium
Sphagnum denticulatum
Sphagnum dusenii
Sphagnum fallax
Sphagnum fallax + S. flexuosum + S. angustifolium
Sphagnum fimbriatum
Sphagnum flexuosum
Sphagnum fuscum
Sphagnum girgensohnii
Sphagnum imbricatum
Sphagnum inundatum
Sphagnum jensenii
Sphagnum lenense
Sphagnum lindbergii
Sphagnum magellanicum
Sphagnum majus
Sphagnum molle
Sphagnum nemoreum
Sphagnum obesum
Sphagnum obtusum
Sphagnum palustre
Sphagnum palustre + S. papillosum
Sphagnum palustre s.l.
Sphagnum papillosum
Sphagnum platyphyllum
Sphagnum plumulosum
Sphagnum pulchrum
Sphagnum pylaiei
Sphagnum pylaisii

Sphagnum quinquefarium
Sphagnum recurvum
Sphagnum recurvum aggr.
Sphagnum riparium
Sphagnum robustum
Sphagnum rubellum
Sphagnum rufescens
Sphagnum russowii
Sphagnum sect. Acutifolia
Sphagnum sect. Cuspidata
Sphagnum sect. Palustria
Sphagnum sect. Subsecunda
Sphagnum squarrosum
Sphagnum strictum
Sphagnum subbicolor
Sphagnum subfulvum
Sphagnum subnitens
Sphagnum subsecundum
Sphagnum tenellum
Sphagnum tenerum
Sphagnum teres
Sphagnum turgidulum
Sphagnum turgidum
Sphagnum warnstorffii
Sphagnum wulfianum

Subalpine

Bellidiastrum michelii
Campanula scheuchzeri
Clematis alpina
Festuca flavescens
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
Sorbus chamaemespilus
Valeriana tripteris

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 walsteiniana
Sorbus chamaemespilus
Sorbus sudetica

Subalpine-conifers

Larix decidua
Pinus cembra

Submediterranean-deciduous-shrubs

Acer monspessulanum
Amelanchier ovalis
Berberis vulgaris
Buxus sempervirens
Carpinus orientalis
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

Taxus baccata
Taxus baccata

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 subsp. trichosiphon
Erigeron calderae
Erysimum scoparium
Genista benehoavensis
Helianthemum juliae
Micromeria lachnophylla
Micromeria lasiophylla subsp. lasiophylla
Micromeria lasiophylla subsp. palmensis
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-Rubus

Rubus caesius
Rubus fruticosus aggr.
Rubus idaeus

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 agrestis
Rosa caesia
Rosa canina aggr.
Rosa foetida
Rosa glauca
Rosa inodora
Rosa majalis
Rosa marginata
Rosa micrantha
Rosa mollis
Rosa pendulina
Rosa pulverulenta
Rosa rubiginosa
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-forest-species

Caltha palustris
Carex acutiformis
Crepis paludosa
Deschampsia cespitosa
Filipendula ulmaria
Galium palustre
Humulus lupulus
Iris pseudacorus
Juncus effusus
Lycopus europaeus
Lysimachia vulgaris
Poa trivialis
Prunus padus
Ranunculus repens
Ribes rubrum aggr.
Rubus caesius
Rumex sanguineus
Schedonorus giganteus

Temperate-riparian-shrubs

Hippophae rhamnoides

Myricaria germanica
Salix cantabrica
Salix daphnoides
Salix eleagnos
Salix pedicellata
Salix purpurea
Salix salviifolia
Salix triandra
Salix viminalis

Temperate-submediterranean-deciduous-shrubs

Acer campestre
Acer monspessulanum
Amelanchier ovalis
Berberis vulgaris
Buxus sempervirens
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
Forsythia europaea
Ligustrum vulgare
Lonicera xylosteum
Malus dasyphylla
Malus sylvestris
Paliurus spina-christi
Prunus cerasifera
Prunus mahaleb
Prunus spinosa
Prunus x eminens
Pyrus cordata
Rhamnus cathartica
Rhamnus saxatilis
Ribes alpinum
Rosa agrestis

Rosa caesia
Rosa canina aggr.
Rosa foetida
Rosa glauca
Rosa inodora
Rosa majalis
Rosa marginata
Rosa micrantha
Rosa mollis
Rosa montana
Rosa pendulina
Rosa pouzinii
Rosa pulverulenta
Rosa rhaetica
Rosa rubiginosa
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
Chaerophyllum hirsutum
Petasites albus
Sambucus racemosa
Silene dioica
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
Carpinus orientalis
Celtis australis
Fraxinus ornus
Ostrya carpinifolia
Quercus canariensis
Quercus cerris
Quercus congesta
Quercus dalechampii
Quercus faginea
Quercus frainetto
Quercus gussonei
Quercus hartwissiana
Quercus ichnusae
Quercus macranthera
Quercus pubescens
Quercus pyrenaica
Quercus trojana
Sorbus domestica
Sorbus torminalis

Trees

Abies alba
Abies borisii-regis
Abies cephalonica
Abies cilicica
Abies nebrodensis
Abies nordmanniana
Abies pinsapo
Abies sibirica
Abies species
Abies concolor
Abies grandis
Abies procera
Acer campestre
Acer cappadocicum
Acer divergens
Acer heldreichii
Acer hyrcanum
Acer monspessulanum
Acer opalus aggr.
Acer platanoides
Acer pseudoplatanus
Acer sempervirens

Acer species
Acacia dealbata
Acacia karoo
Acacia melanoxylon
Acacia saligna
Acer negundo
Acer saccharinum
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 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 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 macrocarpa
Cupressus sempervirens
Cupressus species
Diospyros lotus
Elaeagnus angustifolia
Elaeagnus species
Eucalyptus camaldulensis
Eucalyptus globulus
Eucalyptus robustus
Eucalyptus species
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
Juglans cinerea
Juglans mandshurica
Juglans nigra
Juglans regia
Juniperus brevifolia
Juniperus cedrus
Juniperus drupacea
Juniperus excelsa
Juniperus foetidissima
Juniperus thurifera
Larix decidua
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 omorika
Picea orientalis
Picea pungens
Picea sitchensis
Picea species
Pinus banksiana
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 rhaetica
Pistacia atlantica
Pistacia vera
Platanus occidentalis
Platanus orientalis
Platanus species

Platanus x hispanica
Platyclusus orientalis
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 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
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 ithaburensis
Quercus macranthera
Quercus palustris
Quercus pauciradiata
Quercus petraea
Quercus pontica
Quercus pubescens
Zelkova abelicea
Ulmus species
Ulmus procera
Ulmus minor
Ulmus laevis
Ulmus glabra
Tilia x vulgaris
Tilia tomentosa
Tilia species
Tilia platyphyllos
Tilia cordata
Taxus species
Taxus baccata
Sorbus umbellata
Sorbus torminalis
Sorbus sudetica
Sorbus slovenica
Sorbus roopiana
Sorbus rhodanthera
Sorbus querneae
Sorbus portae-bohemicae
Sorbus pekarovae
Sorbus pannonica
Sorbus latifolia
Sorbus intermedia
Sorbus hybrida aggr.
Sorbus hibernica
Sorbus hardeggensis
Sorbus domestica
Sorbus dacica
Sorbus carpatica
Sorbus borbasii
Sorbus bohemica
Sorbus aucuparia X Sorbus aria
Sorbus aucuparia

Sorbus aria aggr.
Sorbus anglica
Salix x fragilis
Salix euxina
Salix caprea
Salix alba
Quercus x welwitschii
Quercus x trabutii
Quercus x streimii
Quercus x senneniana
Quercus x salcedoi
Quercus x rotensis
Quercus x rosacea
Quercus x penasii
Quercus x nummantina
Quercus x numantina
Quercus x montserratii
Quercus x mixta
Quercus suber
Quercus x kernerii
Quercus x gracilis
Quercus x fontqueri
Quercus x fontanesii
Quercus x firmurensis
Quercus x cerrioides
Quercus x calvescens
Quercus x bedaei
Quercus x arrimatensis
Quercus x andegavensis
Quercus x allorgeana
Quercus x airensis
Quercus trojana
Quercus x marianica
Quercus species
Quercus rotundifolia
Quercus robur
Quercus pyrenaica
Quercus robur (cult.)
Quercus rubra
Quercus rubra (cult.)
Robinia pseudoacacia
Salix alba cv. chermesina
Salix babylonica
Salix blanda
Schinus molle
Sequoia sempervirens
Sequoiadendron giganteum

Sorbus species
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

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 frutescens
Cytisus balansae
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 sagredoi

Crepis leontodontoides
Cytinus hypocistis
Dianthus broteri
Galatella aragonensis
Helichrysum italicum
Helictochloa hackelii
Hypericum australe
Klasea baetica
Narcissus triandrus
Odontarrhena serpyllifolia
Odontites lanceolatus
Orchis obiensis
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 populifolius
Cistus umbellatus
Cistus varius
Lavandula stoechas
Sideritis arborescens
Sideritis hirsuta
Teucrium marum
Thymus mastichina
Ulex argenteus
Ulex borgiae
Ulex genistoides
Ulex genistoides subsp. spectabilis

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 subsp. baetica
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 bicoloreum
Teucrium carolipau
Teucrium cavanillesianum
Teucrium compactum
Teucrium eriocephalum
Teucrium franchetianum
Teucrium leonis
Teucrium lerroxii
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 apenninum
Helianthemum asperum
Helianthemum caput-felis
Helianthemum apenninum subsp. estevei
Helianthemum hirtum
Helianthemum marifolium
Helianthemum neopiliferum
Helianthemum organifolium
Helianthemum violaceum
Helianthemum viscarium
Helianthemum viscidulum

Helichrysum litoreum
Herniaria fontanesii
Hippocrepis bourgaei
Hippocrepis frutescens
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 similatum
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 luentina

Vella spinosa

Wet-heath-herbs-and-mosses

Aulacomnium palustre
Carex panicea
Drosera intermedia
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 +03 E11a-Pannonian-and-Pontic-sandy-steppe

Achillea micrantha
Agropyron dasyanthum
Alkanna tinctoria
Allium guttatum
Alyssum montanum
Anchusa ochroleuca
Androsace septentrionalis
Asperula graveolens
Astragalus arenarius
Astragalus onobrychis
Astragalus varius
Bassia laniflora
Carex colchica
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 fastigiata
Gypsophila paniculata
Helichrysum arenarium
Jacobaea borysthenica
Jurinea cyanoides
Koeleria glauca
Linaria genistifolia
Myosotis stricta
Odontarrhena borzaeana
Odontarrhena tortuosa
Onosma arenaria
Petrohragia prolifera
Peucedanum arenarium
Pilosella echioides
Polygonum arenarium
Scabiosa ucrainica
Scorzonera ensifolia
Secale sylvestre
Sedum sartorianum
Seseli tortuosum
Silene chlorantha
Silene otites aggr.
Stipa borysthenica
Thymus pallasianus
Tragopogon floccosus
Veronica dillenii
Veronica praecox
Veronica verna

##D +03 E11b-Cryptogam-and-annual-dominated-vegetation-on-siliceous-rock-outcrops

Agrostis vinealis
Aira caryophyllea
Aphanes microcarpa
Arenaria serpyllifolia
Cerastium pumilum
Cladonia foliacea
Draba verna aggr.
Gagea bohemica
Jasione montana
Lens nigricans
Linaria genistifolia
Micropyrum tenellum

Minuartia greuteriana
Myosotis ramosissima
Myosotis stricta
Pilosella officinarum
Poa bulbosa
Poa glauca
Poa perconcinna
Polytrichum piliferum
Potentilla argentea
Potentilla tabernaemontani
Racomitrium canescens
Racomitrium elongatum
Scleranthus perennis
Sedum acre
Sedum album
Sedum anglicum
Sedum annuum
Sedum brevifolium
Sedum rupestre
Sedum sexangulare
Sempervivum arachnoideum
Sempervivum montanum
Silene rupestris
Syntrichia ruralis
Thymus caespitius
Trifolium arvense
Trifolium dalmaticum
Trifolium subterraneum
Veronica dillenii
Veronica verna
Vulpia bromoides
Xanthoparmelia conspersa

##D +03 E11d-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 symphycarpa
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 +03 E11e-Perennial-rocky-grassland-of-the-Italian-Peninsula

Alyssoides utriculata
Alyssum diffusum
Anthyllis vulneraria
Armeria canescens
Armeria denticulata
Artemisia alba
Asperula aristata
Asperula purpurea
Asphodeline lutea
Brachypodium genuense
Carex macrolepis
Centaurea ambigua
Centaurea aplolepa
Centaurea rupestris aggr.
Cephalaria leucantha
Crepis lacera
Cyanus triumfettii
Cytisus spinescens
Dianthus ciliatus
Dianthus garganicus
Eryngium amethystinum
Erysimum pseudorhaeticum
Euphorbia spinosa
Festuca circummediterranea
Festuca inops
Festuca robustifolia
Genista januensis
Globularia meridionalis
Helictochloa versicolor
Hippocrepis glauca
Hyssopus officinalis
Inula montana
Iris pseudopumila
Jurinea mollis
Knautia purpurea
Koeleria lobata
Koeleria splendens

Linum tommasinii
Melica transsilvanica
Minuartia laricifolia subsp. ophiolitica
Odontarrhena bertolonii
Phleum ambiguum
Pimpinella saxifraga
Plantago holosteum
Potentilla rigoana
Ruta graveolens
Salvia officinalis
Scorzonera villosa
Scorzoneroides cichoriacea
Sesleria nitida
Silene otites aggr.
Stipa dasyvaginata
Stipa etrusca
Thymus longicaulis
Thymus striatus
Trinia glauca
Valeriana tuberosa

##D +03 E11f-Continental-dry-rocky-steppic-grassland-and-dwarf-scrub-on-chalk-outcrops

Allium sphaeropodium
Artemisia hololeuca
Artemisia nutans
Artemisia salsoloides
Asperula tephrocarpa
Astragalus albicaulis
Brassica elongata subsp. pinnatifida
Diplotaxis cretacea
Euphorbia petrophila
Gypsophila altissima
Jurinea arachnoidea
Koeleria talievii
Linum ucranicum
Onosma simplicissima
Polygala cretacea
Rhaponticoides ruthenica
Scrophularia cretacea
Silene cretacea
Silene supina
Thymus calcareus

##D +03 E11g-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 pallens
Galium austriacum
Globularia cordifolia
Helianthemum nummularium
Helictotrichon decorum
Inula ensifolia
Jovibarba globifera
Melica ciliata
Minuartia setacea
Potentilla cinerea
Sanguisorba minor
Scabiosa ochroleuca
Sedum album
Seseli leucospermum
Seseli osseum
Sesleria rigida
Stachys recta
Teucrium chamaedrys
Teucrium montanum
Thymus comosus
Thymus praecox
Vincetoxicum hirundinaria

#D +03 E11h-Heavy-metal-dry-grassland-of-the-Balkans

Achillea pseudopectinata
Armeria canescens
Asplenium adiantum-nigrum subsp. *serpentini*
Bromopsis riparia
Centaurea grisebachii subsp. *occidentalis*
Centaurea kosaninii
Dianthus giganteus
Drymocallis rupestris
Erysimum linariifolium
Euphorbia glabriflora
Euphorbia montenegrina
Fumana bonapartei
Gypsophila spergulifolia
Halacsya sendtneri
Haplophyllum boissierianum

Minuartia verna
Noccaea kovatsii
Odontarrhena heldreichii
Odontarrhena markgrafii
Paragymnopteris marantae
Pistorinia hispanica
Plantago holosteum
Plantago subulata
Polygonum albanicum
Potentilla astracana
Potentilla visianii
Scabiosa leucophylla
Scleranthus perennis
Scrophularia canina
Sedum hispanicum
Sedum ochroleucum
Sedum serpentini
Sesleria latifolia
Silene armeria
Silene bupleuroides subsp. staticifolia
Stachys recta subsp. baldaccii
Stachys scardica
Verbascum glabratum

##D +03 E11i-Perennial-rocky-calcareous-grassland-of-subatlantic-submediterranean-Europe

Anthyllis vulneraria
Aphyllanthes monspeliensis
Asperula cynanchica
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
Lavandula angustifolia
Lavandula latifolia
Linum suffruticosum aggr.

Ononis striata
Potentilla tabernaemontani
Sedum sediforme
Seseli montanum
Sesleria coerulans
Teucrium chamaedrys
Teucrium montanum
Thymus vulgaris

##D +03 E11j-Dry-steppic-submediterranean-pasture-of-the-Amphi-Adriatic-region

Anthyllis vulneraria
Bromopsis erecta
Carex humilis
Carlina corymbosa
Centaurea cristata
Centaurea rupestris aggr.
Centaurea subtilis
Dianthus sylvestris
Edraianthus tenuifolius
Eryngium amethystinum
Euphorbia spinosa
Festuca valesiaca
Fumana procumbens
Galium corrudifolium
Genista sericea
Genista sylvestris
Globularia cordifolia
Inula verbascifolia
Koeleria splendens
Leontodon apulus
Medicago prostrata
Plantago holosteum
Polygala nicaeensis aggr.
Sanguisorba minor
Satureja montana
Satureja subspicata
Scorzonera villosa
Sesleria juncifolia
Stipa austroitalica
Teucrium montanum

##D +03 E12a-Semi-dry-perennial-calcareous-grassland

Adonis vernalis
Agrimonia eupatoria
Anacamptis pyramidalis
Anthericum ramosum
Arabis hirsuta

Asperula cynanchica
Avenula pubescens
Brachypodium phoenicoides
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
Chrysopogon gryllus
Cirsium acaulon
Cirsium pannonicum
Cruciata glabra
Cytisus austriacus
Danthonia alpina
Dianthus carthusianorum
Entodon concinnus
Eryngium campestre
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
Helictochloa pratensis
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 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
Scorzonera villosa
Securigera varia
Seseli annuum
Teucrium chamaedrys
Thalictrum minus
Thesium linophyllum
Thuidium philiberti
Thymus praecox
Thymus pulegioides
Tragopogon pratensis
Trifolium montanum

Trifolium ochroleucon
Veronica austriaca
Veronica prostrata
Viola hirta

##D +03 E12b-Continental-dry-grassland-true-steppe

Agropyron cristatum
Allium flavum
Artemisia austriaca
Artemisia pontica
Astragalus exscapus
Bassia prostrata
Bothriochloa ischaemum
Campanula sibirica
Carex humilis
Carex stenophylla
Carex supina
Centaurea stoebe
Cephalaria uralensis
Cleistogenes serotina
Crambe tatarica
Cytisus austriacus
Dianthus pontederiae
Dracocephalum austriacum
Elytrigia intermedia
Ephedra distachya
Erysimum diffusum
Festuca valesiaca
Galatella villosa
Galium octonarium
Galium ruthenicum
Goniolimon besseranum
Goniolimon collinum
Goniolimon tataricum
Helictotrichon desertorum
Hypericum elegans
Inula ensifolia
Inula oculus-christi
Iris pumila
Jurinea mollis
Jurinea stoechadifolia
Koeleria brevis
Koeleria macrantha
Linum austriacum
Linum hirsutum
Nepeta ucranica
Nonea pulla

Oxytropis pilosa
Paeonia tenuifolia
Phlomis tuberosa
Pontechium maculatum
Potentilla incana
Ranunculus illyricus
Salvia aethiopis
Salvia austriaca
Salvia nemorosa
Salvia nutans
Scorzonera austriaca
Seseli tortuosum
Stipa anomala
Stipa capillata
Stipa dasyphylla
Stipa korshinskyi
Stipa lessingiana
Stipa pennata
Stipa pulcherrima
Stipa tirsia
Stipa ucrainica
Stipa zalesskii
Taraxacum serotinum
Thymus pannonicus aggr.
Verbascum phoeniceum
Veronica austriaca
Veronica prostrata

##D +03 E12c-Desert-steppe

Agropyron cristatum
Alyssum turkestanicum
Artemisia austriaca
Artemisia lerchiana
Astragalus macropus
Bassia prostrata
Ephedra distachya
Eremogone koriniana
Ferula caspica
Ferula tatarica
Galatella tatarica
Galatella villosa
Jurinea multiflora
Leymus ramosus
Meniocus linifolius
Psathyrostachys juncea
Stipa lessingiana
Tanacetum achilleifolium

Tulipa biebersteiniana

#D +03 E13a-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 bivonae
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 +03 E13b-Mediterranean-tall-perennial-dry-grassland

Allium baeticum
Allium chamaemoly
Allium melananthum
Allium moschatum
Allium pallens
Allium sphaerocephalon
Allium subvillosum
Ampelodesmos mauritanicus
Anacamptis papilionacea

Andropogon distachyos
Andryala integrifolia
Andryala laxiflora
Anthyllis cytisoides
Arenaria valentina
Arenaria x decipiens
Aristida adscensionis
Armeria arenaria
Armeria castroviejoii
Arrhenatherum album
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 caerulea
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
Micromeria graeca
Moricandia arvensis
Narcissus dubius
Ophrys bombyliflora
Ophrys lutea
Ophrys omegaifera subsp. dyris
Ophrys speculum
Ophrys tenthredinifera
Ornithogalum narbonense
Pallenis spinosa
Phagnalon rupestre
Phagnalon saxatile
Phlomis lychnitis
Ranunculus bullatus
Ranunculus paludosus subsp. flabellatus
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 +03 E13c-Mediterranean-annual-rich-dry-grassland

Aegilops geniculata
Aizoanthes 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 macropodum
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
Petrorhagia saxifraga
Pistorinia brevisflora
Plantago albicans
Plantago amplexicaulis
Plantago bellardi
Platycapnos tenuiloba subsp. parallela
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 ramosa
Velezia rigida
Vulpia ciliata
Vulpia ligustica
Vulpia unilateralis
Wangenheimia lima
Xeranthemum annuum

##D +03 E15a-Iberian-oromediterranean-siliceous-dry-grassland

Agrostis tileni
Androsace rioxana
Armeria caespitosa
Armeria duriaei
Artemisia granatensis
Dianthus langeanus
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 vahlii
Potentilla nevadensis
Sideritis glacialis
Silene ciliata
Teesdalia conferta
Trisetum glaciale

##D +03 E15b-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 liviensis
Festuca marginata subsp. andres-molinae
Festuca nevadensis
Festuca ochroleuca
Fritillaria pyrenaica
Genista lobelii
Genista pilosa
Genista pulchella
Helianthemum nummularium
Helictotrichon sedenense subsp. gervaisii
Helictotrichon sempervirens
Hieracium cerinthoides
Iberis saxatilis
Koeleria vallesiana subsp. abbreviata
Laserpitium nestleri subsp. lainzii
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 caerulea
Sideritis glacialis
Sideritis hyssopifolia
Taraxacum aragonicum
Teucrium luteum
Thesium catalaunicum
Thymelaea tinctoria
Thymus godayanus
Thymus mastigophorus
Thymus willkommii
Veronica tenuifolia

##D +03 E15c-Cyrno-Sardean-oromediterranean-siliceous-dry-grassland

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

##D +03 E15d-Balkan-and-Anatolian-oromediterranean-dry-grassland

Alopecurus gerardi
Beta nana
Corydalis blanda subsp. parnassica
Corydalis densiflora
Erigeron epiroticus
Gnaphalium supinum
Herniaria parnassica
Lotus corniculatus
Luzula pindica
Phleum alpinum aggr.

Plantago atrata
Plantago holosteum
Plantago lanceolata
Poa pumila
Ranunculus sartorianus
Rorippa thracica
Scilla nivalis
Scleranthus perennis
Thesium parnassi
Trifolium alpestre
Trifolium heldreichianum
Trifolium noricum
Trifolium pallescens
Trifolium parnassii
Trinia guicciardii

##D +03 E15e-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 +03 E17-Lowland-to-submontane-dry-to-mesic-grassland-usually-Nardus

Ajuga tenorei
Antennaria dioica
Arnica montana
Campanula herminii
Campanula serrata
Carex ericetorum
Carex leporina
Carex pilulifera
Danthonia decumbens
Dianthus deltoides

Festuca filiformis
Galium saxatile
Gentiana pannonica
Gentiana pneumonanthe
Gnaphalium sylvaticum
Hypericum maculatum
Juncus squarrosus
Lathyrus linifolius
Luzula sudetica
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 +03 E18-Open-Iberian-supramediterranean-dry-acid-and-neutral-grassland

Arenaria armerina
Armeria arenaria
Armeria caballeroi
Armeria ciliata
Armeria eriophylla
Armeria langei
Armeria merinoi
Armeria trachyphylla
Armeria transmontana
Bufonia macropetala
Centaurea borjae
Centaurea toletana
Dianthus laricifolius
Erodium foetidum
Erysimum nevadense aggr.
Festuca brigantina
Festuca gredensis
Festuca longiauriculata
Festuca rivas-martinezii
Festuca summilusitana
Helianthemum masguindalii
Herniaria scabrida

Leucanthemopsis pallida
Leucanthemopsis pulverulenta
Linaria aeruginea
Ornithogalum concinnum
Ortegia hispanica
Pilosella castellana
Reseda virgata
Sagina merinoi
Silene legionensis
Thymus bracteatus
Thymus leptophyllus subsp. *izcoi*

#D +03 E19a-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
Ceratodon purpureus
Cetraria aculeata
Dianthus armeria
Dianthus carthusianorum
Dianthus deltoides
Draba verna aggr.
Erysimum diffusum
Festuca filiformis
Festuca stricta subsp. *trachyphylla*
Filago arvensis
Filago minima
Helichrysum arenarium
Herniaria glabra
Hypochaeris radicata
Jasione heldreichii
Jasione montana
Leontodon saxatilis
Micropyrum tenellum
Myosotis ramosissima
Myosotis stricta
Ornithopus perpusillus
Phelipanche arenaria

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

##D +03 E19b-Inland-sanddrift-and-dune-with-siliceous-grassland

Agrostis vinealis
Aira caryophyllea
Aira praecox
Campylopus introflexus
Carex arenaria
Ceratodon purpureus
Cetraria aculeata
Cladonia cervicornis
Cladonia foliacea
Cladonia zopfii
Corynephorus canescens
Filago minima
Jasione montana
Ornithopus perpusillus
Spergula morisonii
Stereocaulon condensatum
Teesdalia nudicaulis
Thymus serpyllum
Vulpia myuros

##D +03 E1A-Mediterranean-to-Atlantic-open-dry-acid-and-neutral-grassland

Aira caryophyllea
Aira cupaniana
Aira elegantissima
Aira tenorii
Airoopsis tenella

Andryala integrifolia
Anthoxanthum aristatum
Anthyllis cornicina
Anthyllis lemanniana
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 +03 E1F-Azorean-open-dry-acid-to-neutral-grassland

Agrostis congestiflora
Agrostis congestiflora subsp. *congestiflora*
Agrostis congestiflora subsp. *oreophila*
Agrostis gracililaxa
Brachypodium gaditanum
Carex hochstetteriana
Carex peregrina
Carex vulcani
Centaureum 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 +03 E21-Mesic-permanent-pasture-of-lowlands-and-mountains

Achillea millefolium aggr.
Agrostis capillaris
Agrostis castellana
Agrostis stolonifera
Alopecurus geniculatus
Anacamptis coriophora
Anthoxanthum odoratum aggr.
Bellis perennis
Carum carvi
Carum verticillatum
Cerastium fontanum subsp. *vulgare*
Chamaemelum nobile
Crepis aurea
Crepis capillaris
Cynosurus cristatus
Euphrasia rostkoviana

Festuca rubra
Gaudinia fragilis
Hordeum bulbosum
Hordeum secalinum
Hypochaeris radicata
Leontodon hispidus
Lolium perenne
Lotus corniculatus
Phleum alpinum aggr.
Phleum pratense
Plantago alpina
Plantago lanceolata
Plantago major
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 +03 E22-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 jacea
Centaurea nemoralis
Cerastium fontanum subsp. vulgare
Crepis biennis

Dactylis glomerata
Daucus carota
Festuca rubra
Galium mollugo aggr.
Geranium pratense
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 +03 E23-Mountain-hay-meadow

Agrostis capillaris
Anthoxanthum odoratum aggr.
Arabidopsis halleri
Astrantia major
Bistorta officinalis
Bistorta vivipara
Briza media
Campanula patula
Centaurea phrygia
Cirsium heterophyllum
Crepis mollis
Crepis pyrenaica

Crocus vernus
Festuca rubra
Geranium sylvaticum aggr.
Hypericum maculatum
Knautia nevadensis
Lathyrus pratensis
Luzula campestris aggr.
Meum athamanticum
Muscari botryoides
Narcissus poeticus
Phleum alpinum aggr.
Phyteuma halleri
Phyteuma spicatum
Pimpinella major
Pimpinella serbica
Poa chaixii
Primula elatior
Rhinanthus mediterraneus
Rumex acetosa
Rumex arifolius
Silene dioica
Trifolium pratense
Trisetum flavescens
Viola cornuta

##D +03 E24-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 involucreta
Phalacrocarpum oppositifolium
Phalacrocarpum sericeum
Sedum forsterianum
Trifolium cernuum
Trifolium retusum
Vulpia bromoides
Vulpia ciliata
Vulpia myuros

##D +03 E31a-Mediterranean-tall-humid-inland-grassland

Agrostis stolonifera
Anacamptis palustris aggr.
Blackstonia perfoliata
Carex mairei
Centaurea jacea
Cirsium monspessulanum
Cirsium pyrenaicum
Cochlearia glastifolia
Cochlearia megalosperma
Cyperus eragrostis
Cyperus longus
Dittrichia viscosa
Dorycnium hirsutum
Dorycnium rectum
Epipactis palustris
Eupatorium cannabinum
Euphorbia hirsuta
Galium debile
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

##D +03 E32a-Mediterranean-short-moist-grassland-of-lowlands

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

##D +03 E32b-Mediterranean-short-moist-grassland-of-mountains

Agrostis castellana
Agrostis nevadensis
Allium schoenoprasum
Anthoxanthum odoratum aggr.
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 pneumonanthe
Jasione laevis
Juncus squarrosus
Lotus glacialis
Lotus glareosus
Luzula multiflora
Luzula spicata
Meum athamanticum
Narcissus bulbocodium
Nardus stricta
Ophioglossum azoricum
Ophioglossum vulgatum
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

Sedum melanantherum
Trifolium repens
Veronica repens

##D +03 E33-Submediterranean-moist-meadow

Achillea millefolium aggr.
Agrostis stolonifera
Alopecurus pratensis
Alopecurus rendlei
Anthoxanthum odoratum aggr.
Anacamptis palustris aggr.
Bellevia 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
Elytrigia repens
Galium debile
Galium verum
Gaudinia fragilis
Gratiola officinalis
Holcus lanatus
Hordeum murinum
Hordeum murinum subsp. leporinum
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 +03 E34a-Moist-or-wet-mesotrophic-to-eutrophic-hay-meadow

Achillea millefolium aggr.
Agrostis stolonifera
Allium angulosum
Alopecurus bulbosus
Alopecurus pratensis

Bistorta officinalis
Bromus racemosus
Caltha palustris
Cardamine matthioli
Cardamine pratensis
Carex divisa
Carex melanostachya
Centaurea jacea
Centaurea nigrescens
Cerastium dubium
Cirsium canum
Cirsium heterophyllum
Cirsium oleraceum
Cirsium palustre
Cirsium rivulare
Clematis integrifolia
Colchicum autumnale
Crepis paludosa
Cruciata glabra
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
Hypericum tetrapterum
Inula britannica
Jacobaea aquatica
Juncus conglomeratus
Juncus effusus
Lathyrus palustris
Lathyrus pratensis
Leucojum aestivum
Lotus pedunculatus
Lysimachia nummularia
Lysimachia vulgaris
Lythrum virgatum
Myosotis nemorosa
Myosotis scorpioides
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 +03 E34b-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
Eleocharis uniglumis
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 +03 E35-Temperate-and-boreal-moist-or-wet-oligotrophic-grassland

Achillea millefolium aggr.
Agrostis stolonifera
Anthoxanthum odoratum aggr.
Avenula pubescens
Briza media
Cardamine pratensis
Carex pallescens
Carex panicea
Cirsium dissectum
Cirsium tuberosum
Crepis paludosa
Dianthus superbus
Galium boreale
Galium uliginosum
Gentiana pneumonanthe
Gladiolus imbricatus
Holcus lanatus
Iris sibirica
Molinia caerulea aggr.
Potentilla erecta
Ranunculus acris
Sanguisorba officinalis
Scorzonera humilis
Selinum carvifolia
Serratula tinctoria
Silaum silaus
Stachys alopecuros
Stachys officinalis

Succisa pratensis
Viola stagnina

##D +03 E41-Snow-bed-vegetation

Achillea clusiana
Alchemilla fissa
Alchemilla pentaphyllea
Alopecurus gerardi
Alopecurus riloensis
Arabis caerulea
Bistorta vivipara
Cardamine alpina
Carex atrata
Carex bigelowii
Carex foetida
Carex kitaibeliana
Carex lachenalii
Carex norvegica
Carex pyrenaica
Cerastium cerastoides
Crocus veluchensis
Dianthus microlepis
Draba crassifolia
Festuca picturata
Gnaphalium hoppeanum
Gnaphalium supinum
Hornungia alpina
Juncus biglumis
Luzula alpinopilosa
Luzula alpinopilosa subsp. *alpinopilosa*
Luzula confusa
Luzula desvauxii
Luzula nivalis
Phippsia algida
Plantago atrata
Poa arctica
Poa dolosa
Poa granitica
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 oppositifolia
Saxifraga rivularis
Saxifraga stellaris
Saxifraga tenuis
Saxifraga wahlenbergii
Sedum alpestre
Sedum candolleianum
Sibbaldia procumbens
Soldanella alpina
Soldanella carpatica
Soldanella minima
Taraxacum apenninum
Taraxacum bithynicum
Taraxacum croceum
Trisetum spicatum
Veronica alpina

#D +03 E43a-Boreal-and-arctic-acidophilous-alpine-grassland

Alchemilla glomerulans
Anthoxanthum odoratum aggr.
Astragalus alpinus
Astragalus frigidus
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
Sibbaldia procumbens
Thalictrum alpinum

Trisetum spicatum
Vahlodea atropurpurea
Veronica alpina
Viola biflora

##D +03 E43b-Temperate-acidophilous-alpine-grassland

Agrostis nevadensis
Agrostis rupestris
Alchemilla catalaunica
Androsace carnea
Astragalus alpinus
Astragalus frigidus
Bellardiochloa variegata
Campanula alpina
Campanula herminii
Campanula scheuchzeri
Carex bigelowii
Carex brunnescens
Carex curvula
Carex foetida
Carex lachenalii
Carex macrostyla
Cerastium alpinum
Colchicum montanum
Epilobium anagallidifolium
Erigeron uniflorus
Festuca airoides
Festuca eskia
Festuca iberica
Gentiana alpina
Geum montanum
Globularia meridionalis
Gnaphalium supinum
Helictochloa versicolor
Holcus lanatus
Homogyne alpina
Iris latifolia
Jacobaea abrotanifolia
Jacobaea incana
Juncus squarrosus
Juncus trifidus
Koeleria lobata
Leucanthemopsis alpina
Ligusticum corsicum
Ligusticum mutellina
Lotus alpinus
Luzula pediformis

Luzula spicata
Minuartia recurva
Minuartia verna
Nardus stricta
Oreochloa disticha
Plantago holosteum
Polygala edmundii
Potentilla aurea
Potentilla crantzii
Primula minima
Pulsatilla alpina
Ranunculus pyrenaicus
Sagina pilifera
Saussurea alpina
Scorzoneroides cantabrica
Scorzoneroides microcephala
Scorzoneroides pyrenaica
Thalictrum alpinum
Thymus nervosus
Trifolium alpinum
Trisetum spicatum
Veronica alpina
Viola biflora

##D +03 E44a-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
Gymnadenia rubra
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 sieberi
Primula clusiana
Pulsatilla alpina
Ranunculus hybridus
Ranunculus thora
Rhinanthus gracilis
Saussurea alpina
Saussurea pygmaea
Saxifraga caesia
Saxifraga paniculata
Senecio doronicum
Sesleria caerulea
Sesleria coerulans
Stachys alopecuroides
Thesium alpinum
Veronica aphylla
Veronica fruticans

##D +03 E44b-Alpine-and-subalpine-calcareous-grassland-of-the-Balkans-and-Appennines

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 +03 E52a-Thermophilous-woodland-fringe-of-base-rich-soils

Aconitum anthora
Aegonychon purpurocaeruleum
Anemone sylvestris
Aquilegia vulgaris
Astragalus glycyphyllos
Bupleurum falcatum
Campanula bononiensis
Campanula persicifolia
Clematis recta
Clinopodium nepeta
Clinopodium vulgare
Crepis praemorsa
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
Melampyrum velebicum
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
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 +03 E52b-Woodland-fringe-of-acidic-nutrient-poor-soils

Campanula baumgartenii
Hieracium lachenalii
Hieracium laevigatum
Hieracium sabaudum
Holcus mollis
Hypericum pulchrum
Jacobaea adonidifolia
Lathyrus linifolius
Lonicera periclymenum
Melampyrum pratense
Melampyrum sylvaticum
Peucedanum gallicum
Pulmonaria longifolia
Solidago virgaurea
Teucrium scorodonia
Vicia orobus

##D +03 E52c-Macaronesian-thermophilous-woodland-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 +03 E54-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 clematidis
Artemisia vulgaris
Aruncus dioicus
Asparagus asparagoides
Atriplex sagittata
Ballota nigra
Bidens pilosa
Brachypodium sylvaticum
Bromopsis inermis
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 fuchsii
Dipsacus fullonum
Dipsacus laciniatus
Dittrichia viscosa
Dorycnium rectum
Dryopteris filix-mas
Dysphania ambrosioides
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 bufonius
Juncus inflexus
Lactuca muralis
Lamium album
Lamium maculatum
Lapsana communis
Leersia oryzoides

Leonurus cardiaca
Lunaria rediviva
Lycopus europaeus
Lysimachia vulgaris
Lythrum salicaria
Mentha longifolia
Myosoton aquaticum
Parietaria officinalis
Petasites albus
Petasites hybridus
Phalaroides arundinacea
Physalis alkekengi
Poa nemoralis
Poa trivialis
Pulicaria dysenterica
Rubus caesius
Rubus ulmifolius
Rumex conglomeratus
Salvia glutinosa
Schedonorus giganteus
Scrophularia umbrosa
Silene baccifera
Silene dioica
Smyrniium perfoliatum
Solidago gigantea
Stachys sylvatica
Symphyotrichum lanceolatum
Symphytum officinale
Tanacetum vulgare
Telekia speciosa
Trifolium repens
Trollius europaeus
Tropaeolum majus
Urtica dioica
Valeriana excelsa
Veronica longifolia
Viola alba
Viola odorata
Viola reichenbachiana

##D +03 E55-Montane-subalpine-moist-or-wet-tall-herb-and-fern-fringe

Aconitum burnatii
Aconitum lycoctonum
Aconitum napellus
Aconitum tauricum
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 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
Molopospermum peloponnesiacum
Myosotis soleirolii
Pedicularis foliosa
Peucedanum ostruthium
Ranunculus aconitifolius
Ranunculus platanifolius
Rhaponticum scariosum subsp. rhaponticum
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

##D +03 E56-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
Centaureum erythraea
Chaerophyllum temulum
Chelidonium majus
Digitalis grandiflora
Digitalis purpurea
Epilobium angustifolium
Erechtites hieraciifolius
Eupatorium cannabinum
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
Sisymbrium strictissimum
Stachys alpina

Stachys sylvatica
Torilis japonica
Urtica dioica
Valeriana officinalis
Verbascum thapsus
Veronica sublobata

##D +03 E61-Mediterranean-inland-salt-steppe

Aeluropus littoralis
Arthrocnemum macrostachyum
Bassia hirsuta
Carex lainzii
Elytrigia curvifolia
Frankenia corymbosa
Frankenia pulverulenta
Gypsophila tomentosa
Halocnemum strobilaceum
Halopeplis amplexicaulis
Helianthemum polygonoides
Hordeum marinum
Hornungia procumbens
Jacobaea auricula
Juncus subulatus
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 furfuraceum
Limonium insigne
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 viciosi
Mesembryanthemum crystallinum
Mesembryanthemum nodiflorum
Microcnemum coralloides
Parapholis strigosa
Puccinellia caespitosa
Puccinellia festuciformis
Puccinellia hispanica
Salicornia patula
Sonchus crassifolius
Spergularia diandra
Sphenopus divaricatus
Suaeda braun-blanquetii
Suaeda maritima
Suaeda splendens
Suaeda vera

##D +03 E62-Continental-inland-salt-steppe

Artemisia santonicum
Bassia hirsuta
Bassia laniflora
Bassia sedoides
Bupleurum tenuissimum
Camphorosma annua
Camphorosma monspeliaca
Carex stenophylla
Crypsis schoenoides
Eremopyrum orientale
Eremopyrum triticeum
Galatella sedifolia
Hordeum geniculatum
Lepidium cartilagineum
Limonium gmelinii
Lotus angustissimus
Petrosimonia brachiata
Petrosimonia oppositifolia
Petrosimonia triandra
Pholiurus pannonicus
Plantago cornuti
Plantago tenuiflora
Podospermum canum
Puccinellia distans
Puccinellia festuciformis

Ranunculus pedatus
Salicornia perennans
Scorzonera parviflora
Spergularia marina
Suaeda acuminata
Suaeda corniculata
Suaeda maritima
Suaeda prostrata
Trifolium retusum

##D +03 E63-Temperate-inland-salt-marsh

Argentina anserina
Atriplex prostrata
Bassia hirsuta
Blysmopsis rufa
Bolboschoenus maritimus
Bolboschoenus planiculmis
Bupleurum tenuissimum
Carex cuprina
Carex distans
Centaureum pulchellum
Cerastium dubium
Cirsium brachycephalum
Cirsium esculentum
Eleocharis uniglumis
Frankenia hirsuta
Glaux maritima
Halimione pedunculata
Halocnemum strobilaceum
Hordeum geniculatum
Hordeum marinum
Iris spuria
Juncus gerardi
Lotus tenuis
Melilotus dentatus
Mentha pulegium
Plantago maritima
Plantago tenuiflora
Podospermum canum
Puccinellia distans
Puccinellia festuciformis
Ranunculus sardous
Salicornia emerici
Salicornia europaea aggr.
Salicornia perennans
Salsola soda
Schoenoplectus lacustris subsp. glaucus

Scorzonera parviflora
Spergularia marina
Spergularia media
Suaeda acuminata
Suaeda maritima
Suaeda prostrata
Taraxacum besarabicum
Trifolium fragiferum
Triglochin maritima
Tripolium pannonicum

##D +03 E64-Semi-desert-salt-pan

Aeluropus lagopoides
Anabasis aphylla
Anabasis salsa
Atriplex aucheri
Atriplex cana
Atriplex sphaeromorpha
Bienertia cycloptera
Climacoptera aralensis
Climacoptera brachiata
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 paulsenii
Suaeda dendroides
Suaeda physophora

##D +03 E65-Continental-subsaline-alluvial-pasture-and-meadow

Aeluropus littoralis
Bassia hyssopifolia
Carex stenophylla
Dodartia orientalis
Eryngium planum
Limonium reniforme
Medicago caerulea
Rhaponticum repens

##D +04 Acidophilous-forest-species

Avenella flexuosa
Blechnum spicant
Calamagrostis villosa
Calluna vulgaris
Carex pilulifera
Ceratocapnos claviculata
Dicranum majus
Dicranum scoparium
Galium saxatile
Holcus mollis
Huperzia selago
Hypericum pulchrum
Ilex aquifolium
Leucobryum glaucum
Lonicera periclymenum
Luzula luzuloides
Luzula nivea
Luzula pilosa
Luzula sylvatica

Maianthemum bifolium
Melampyrum pratense
Melampyrum sylvaticum
Mnium hornum
Poa chaixii
Pteridium aquilinum
Pyrola minor
Teucrium scorodonia
Trientalis europaea
Vaccinium myrtillus
Vaccinium vitis-idaea
Veronica officinalis

##D +04 Eutrophic-deciduous-forest-species

Aconitum lycoctonum
Actaea spicata
Adoxa moschatellina
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
Asperula cymulosa
Asperula involucrata
Asperula taurina
Astrantia carniolica
Astrantia major
Brachypodium sylvaticum
Bromopsis ramosa aggr.
Calamintha grandiflora
Campanula persicifolia
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 waldesteinii
Carex alba
Carex digitata
Carex pilosa
Carpesium cernuum
Cephalanthera damasonium
Cephalanthera longifolia
Cephalanthera rubra
Clinopodium umbrosum
Convallaria majalis
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 drymeja subsp. exaltata
Drymochloa sylvatica
Dryopteris filix-mas
Epimedium alpinum
Epimedium pinnatum subsp. colchicum
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
Lysimachia nemorum
Melampyrum nemorosum
Melica nutans
Melica uniflora
Melittis melissophyllum
Mercurialis perennis
Miliium effusum
Moehringia trinervia
Neottia nidus-avis
Omphalodes cappadocica
Omphalodes nitida
Omphalodes scorpioides
Omphalodes verna
Orobanche hederæ
Orobanche salviæ
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 subsp. constantinopolitanus
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 reichenbachiana x riviniana
Viola riviniana
Viola sieheana
Waldsteinia geoides
Waldsteinia ternata

##D +04 Thermophilous-oak-forest-species

Acer tataricum
Aegonychon purpurocaeruleum
Anemone sylvestris
Brachypodium pinnatum
Brachypodium rupestre

Buxus sempervirens
Campanula bononiensis
Carex fritschii
Carex halleriana
Carex michelii
Clinopodium vulgare
Colutea arborescens
Cornus mas
Cotinus coggygria
Dictamnus albus
Euphorbia epithymoides
Geranium sanguineum
Hypericum montanum
Inula hirta
Jasminum fruticans
Laserpitium latifolium
Lathyrus niger
Lathyrus venetus
Lonicera caprifolium
Lonicera etrusca
Luzula forsteri
Melittis melissophyllum
Mercurialis ovata
Orchis purpurea
Piptatherum virescens
Potentilla alba
Potentilla micrantha
Primula veris
Prunus mahaleb
Pulmonaria angustifolia
Pulmonaria mollis
Pyrus nivalis
Pyrus spinosa
Ruscus aculeatus
Scutellaria altissima
Stachys officinalis
Syringa vulgaris
Tanacetum corymbosum
Teucrium chamaedrys
Viburnum lantana
Vincetoxicum hirundinaria
Viola alba
Viola hirta

Formal definitions of the revised EUNIS habitat types, groups E, F and G

2 E11a Pannonian and Pontic sandy steppe

(<##Q +03 E11a-Pannonian-and-Pontic-sandy-steppe> AND <#03 +03 E11a-Pannonian-and-Pontic-sandy-steppe>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

4 E11a! Pannonian and Pontic sandy steppe
<#TC E11a-Pannonian-and-Pontic-sandy-steppe-specialists GR 15> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E11b Cryptogam- and annual-dominated vegetation on siliceous rock outcrops
((<##Q +03 E11b-Cryptogam-and-annual-dominated-vegetation-on-siliceous-rock-outcrops> AND <#03 +03 E11b-Cryptogam-and-annual-dominated-vegetation-on-siliceous-rock-outcrops>) AND <#TC +03 E11b-Cryptogam-and-annual-dominated-vegetation-on-siliceous-rock-outcrops GR #TC Hemicryptophytes>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E11d Cryptogam- and annual-dominated vegetation on calcareous and ultramafic rock outcrops
((<##Q +03 E11d-Cryptogam-and-annual-dominated-vegetation-on-calcareous-and-ultramafic-rock-outcrops> AND <#03 +03 E11d-Cryptogam-and-annual-dominated-vegetation-on-calcareous-and-ultramafic-rock-outcrops>) AND <#TC +03 E11d-Cryptogam-and-annual-dominated-vegetation-on-calcareous-and-ultramafic-rock-outcrops GR #TC Hemicryptophytes>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E11e Perennial rocky grassland of the Italian Peninsula
((<##Q +03 E11e-Perennial-rocky-grassland-of-the-Italian-Peninsula> AND <#03 +03 E11e-Perennial-rocky-grassland-of-the-Italian-Peninsula>) NOT (<#TC Trees GR 05> OR (<#TC Shrubs GR 05> OR <#TC Garrigue-and-micro-garrigue-species GR 25>))) AND <\$\$C Country EQ Italy>

4 E11f Continental dry rocky steppic grassland and dwarf scrub on chalk outcrops
(<#TC E11f-Continental-dry-rocky-steppic-grassland-and-dwarf-scrub-on-chalk-outcrops-specialists GR 25> OR <#02 E11f-Continental-dry-rocky-steppic-grassland-and-dwarf-scrub-on-chalk-outcrops-specialists>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E11g Perennial rocky grassland of Central and South-Eastern Europe
((<##Q +03 E11g-Perennial-rocky-grassland-of-Central-and-South-Eastern-Europe> AND <#03 +03 E11g-Perennial-rocky-grassland-of-Central-and-South-Eastern-Europe>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)) NOT (<\$\$N DEG_LON GR -50> NOT <\$\$N DEG_LON GR 5>)

2 E11h Heavy-metal dry grassland of the Balkans
(<##Q +03 E11h-Heavy-metal-dry-grassland-of-the-Balkans> AND <#03 +03 E11h-Heavy-metal-dry-grassland-of-the-Balkans>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E11i Perennial rocky calcareous grassland of subatlantic-submediterranean Europe
((<##Q +03 E11i-Perennial-rocky-calcareous-grassland-of-subatlantic-submediterranean-Europe> AND <#03 +03 E11i-Perennial-rocky-calcareous-grassland-of-subatlantic-

submediterranean-Europe>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)) NOT <\$\$N DEG_LON GR 8>

2 E11j Dry steppic submediterranean pasture of the Amphi-Adriatic region
((<##Q +03 E11j-Dry-steppic-submediterranean-pasture-of-the-Amphi-Adriatic-region>
AND <#03 +03 E11j-Dry-steppic-submediterranean-pasture-of-the-Amphi-Adriatic-
region>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)) NOT ((<\$\$N DEG_LON GR
-50> NOT <\$\$N DEG_LON GR 6.5>) OR <\$\$N DEG_LAT GR 50>)

2 E12a Semi-dry perennial calcareous grassland (meadow steppe)
(<##Q +03 E12a-Semi-dry-perennial-calcareous-grassland> AND <#03 +03 E12a-Semi-
dry-perennial-calcareous-grassland>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E12b Continental dry grassland (true steppe)
(<##Q +03 E12b-Continental-dry-grassland-true-steppe> AND <#02 +03 E12b-
Continental-dry-grassland-true-steppe>) NOT (<#TC Trees GR 05> OR (<#TC Shrubs GR
05> OR (<#TC Dwarf-shrubs GR 05> OR (<#TC E11f-Continental-dry-rocky-steppic-
grassland-and-dwarf-scrub-on-chalk-outcrops-specialists GR 25> OR (<#02 E11f-
Continental-dry-rocky-steppic-grassland-and-dwarf-scrub-on-chalk-outcrops-specialists>
OR <#TC Garrigue-and-micro-garrigue-species GR 05>))))

4 E12b!Continental dry grassland (true steppe)
(<#TC E12b-Continental-dry-grassland-true-steppe-specialists GR 25> AND <#03 +03
E12b-Continental-dry-grassland-true-steppe>) NOT (<#TC Trees GR 05> OR <#TC Shrubs
GR 05>)

2 E12c Desert steppe
(<##Q +03 E12c-Desert-steppe> AND <#02 +03 E12c-Desert-steppe>) NOT (<#TC Trees
GR 05> OR <#TC Shrubs GR 05>)

2 E13a Mediterranean closely grazed dry grassland
((<##Q +03 E13a-Mediterranean-closely-grazed-dry-grassland> AND <#02 +03 E13a-
Mediterranean-closely-grazed-dry-grassland>) NOT (<#TC Trees GR 05> OR (<#TC Shrubs
GR 05> OR <#TC Crops GR 05>))) NOT <\$\$N DEG_LAT GR 46>

2 E13b Mediterranean tall perennial dry grassland
(<##Q +03 E13b-Mediterranean-tall-perennial-dry-grassland> AND <#03 +03 E13b-
Mediterranean-tall-perennial-dry-grassland>) NOT (<#TC Trees GR 05> OR (<#TC Shrubs
GR 05> OR <#TC Garrigue-and-micro-garrigue-species GR 05>))

4 E13b!Mediterranean tall perennial dry grassland
<#TC E13b-Mediterranean-tall-perennial-dry-grassland-specialists GR 50> NOT (<#TC
Trees GR 05> OR <#TC Shrubs GR 05>)

2 E13c Mediterranean annual-rich dry grassland

(<##Q +03 E13c-Mediterranean-annual-rich-dry-grassland> AND <#03 +03 E13c-Mediterranean-annual-rich-dry-grassland>) NOT <#TC Trees|#TC Shrubs|#TC Chamaephytes|#TC Hemicryptophytes GR 10>

2 E15a Iberian oromediterranean siliceous dry grassland
(<##Q +03 E15a-Iberian-oromediterranean-siliceous-dry-grassland> AND <#02 +03 E15a-Iberian-oromediterranean-siliceous-dry-grassland>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

4 E15a!Iberian oromediterranean siliceous dry grassland
<#TC E15a-Iberian-oromediterranean-siliceous-dry-grassland-specialists GR 10> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E15b Iberian oromediterranean basiphilous dry grassland
(<##Q +03 E15b-Iberian-oromediterranean-basiphilous-dry-grassland> AND <#01 E15b-Iberian-oromediterranean-basiphilous-dry-grassland-specialists>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

4 E15b!Iberian oromediterranean basiphilous dry grassland
<#TC E15b-Iberian-oromediterranean-basiphilous-dry-grassland-specialists GR 10> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E15c Cyrno-Sardean oromediterranean siliceous dry grassland
<##Q +03 E15c-Cyrno-Sardean-oromediterranean-siliceous-dry-grassland> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

4 E15c!Cyrno-Sardean oromediterranean siliceous dry grassland
<#TC E15c-Cyrno-Sardean-oromediterranean-siliceous-dry-grassland-specialists GR 10> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E15d Balkan and Anatolian oromediterranean dry grassland
(<##Q +03 E15d-Balkan-and-Anatolian-oromediterranean-dry-grassland> AND <#01 E15d-Balkan-and-Anatolian-oromediterranean-dry-grassland-specialists>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

4 E15d!Balkan and Anatolian oromediterranean dry grassland
<#TC E15d-Balkan-and-Anatolian-oromediterranean-dry-grassland-specialists GR 10> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E15e Madeiran oromediterranean siliceous dry grassland
<##Q +03 E15e-Madeiran-oromediterranean-siliceous-dry-grassland> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

4 E15e!Madeiran oromediterranean siliceous dry grassland
<#TC E15e-Madeiran-oromediterranean-siliceous-dry-grassland-specialists GR 10> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

- 2 E17 Lowland to montane, dry to mesic grassland usually dominated by *Nardus stricta*
 (<##Q +03 E17-Lowland-to-submontane-dry-to-mesic-grassland-usually-Nardus> AND <#03 +03 E17-Lowland-to-submontane-dry-to-mesic-grassland-usually-Nardus>) NOT ((<#TC Trees GR 05> OR <#TC Shrubs GR 05>) OR <#TC Dwarf-shrubs GR 15>)
- 2 E18 Open Iberian supramediterranean dry acid and neutral grassland
 <##Q +03 E18-Open-Iberian-supramediterranean-dry-acid-and-neutral-grassland> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)
- 4 E18! Open Iberian supramediterranean dry acid and neutral grassland
 <#TC E18-Open-Iberian-supramediterranean-dry-acid-and-neutral-grassland-specialists GR 10> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)
- 2 E19a Oceanic to subcontinental inland sand grassland on dry acid and neutral soils
 ((<##Q +03 E19a-Oceanic-to-subcontinental-inland-sand-grassland-on-dry-acid-and-neutral-soils> AND <#03 +03 E19a-Oceanic-to-subcontinental-inland-sand-grassland-on-dry-acid-and-neutral-soils>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)) AND <\$\$C COAST_EEA EQ N>
- 2 E19b Inland sanddrift and dune with siliceous grassland
 ((<##Q +03 E19b-Inland-sanddrift-and-dune-with-siliceous-grassland> AND <#03 +03 E19b-Inland-sanddrift-and-dune-with-siliceous-grassland>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)) AND <\$\$C COAST_EEA EQ N>
- 4 E19b! Inland sanddrift and dune with siliceous grassland
 (<#TC E19b-Inland-sanddrift-and-dune-with-siliceous-grassland-specialists GR 50> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)) AND <\$\$C COAST_EEA EQ N>
- 2 E1A Mediterranean to Atlantic open, dry, acid and neutral grassland
 (<##Q +03 E1A-Mediterranean-to-Atlantic-open-dry-acid-and-neutral-grassland> AND <#03 +03 E1A-Mediterranean-to-Atlantic-open-dry-acid-and-neutral-grassland>) NOT (<#TC Trees GR 05> OR (<#TC Shrubs GR 05> OR (<#TC Crops GR 05> OR (<#03 B14b-Mediterranean-and-Macaronesian-coastal-dune-grassland-grey-dune-specialists> OR <#TC +03 E13c-Mediterranean-annual-rich-dry-grassland GR 25>))))
- 4 E1B Heavy-metal grassland in Western and Central Europe
 (<#02 E1B-Heavy-metal-grassland-in-Western-and-Central-Europe-specialists> OR <#TC E1B-Heavy-metal-grassland-in-Western-and-Central-Europe-specialists GR 05>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)
- 2 E1F Azorean open, dry, acid to neutral grassland
 <##Q +03 E1F-Azorean-open-dry-acid-to-neutral-grassland> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)
- 2 E21 Mesic permanent pasture of lowlands and mountains

(<##Q +03 E21-Mesic-permanent-pasture-of-lowlands-and-mountains> AND <#03 +03 E21-Mesic-permanent-pasture-of-lowlands-and-mountains>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E22 Low and medium altitude hay meadow
(<##Q +03 E22-Low-and-medium-altitude-hay-meadow> AND <#03 +03 E22-Low-and-medium-altitude-hay-meadow>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E23 Mountain hay meadow
(<##Q +03 E23-Mountain-hay-meadow> AND <#02 E23-Mountain-hay-meadow-specialists>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

4 E23! Mountain hay meadow
<#03 E23-Mountain-hay-meadow-specialists> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E24 Iberian summer pasture (vallicar)
(<##Q +03 E24-Iberian-summer-pasture-vallicar> AND <#01 E24-Iberian-summer-pasture-vallicar-specialists>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

4 E24! Iberian summer pasture (vallicar)
(<#TC E24-Iberian-summer-pasture-vallicar-specialists GR 25> AND <#02 E24-Iberian-summer-pasture-vallicar-specialists>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E31a Mediterranean tall humid inland grassland
(<##Q +03 E31a-Mediterranean-tall-humid-inland-grassland> AND <#01 E31a-Mediterranean-tall-humid-inland-grassland-specialists>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E32a Mediterranean short moist grassland of lowlands
(<##Q +03 E32a-Mediterranean-short-moist-grassland-of-lowlands> AND <#03 +03 E32a-Mediterranean-short-moist-grassland-of-lowlands>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

4 E32a!Mediterranean short moist grassland of lowlands
<#TC E32a-Mediterranean-short-moist-grassland-of-lowlands-specialists GR 25> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E32b Mediterranean short moist grassland of mountains
(<##Q +03 E32b-Mediterranean-short-moist-grassland-of-mountains> AND <#01 E32b-Mediterranean-short-moist-grassland-of-mountains-specialists>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E33 Submediterranean moist meadow
(<##Q +03 E33-Submediterranean-moist-meadow> AND <#02 E33-Submediterranean-moist-meadow-specialists>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E34a Moist or wet mesotrophic to eutrophic hay meadow
(<##Q +03 E34a-Moist-or-wet-mesotrophic-to-eutrophic-hay-meadow> AND <#03 +03 E34a-Moist-or-wet-mesotrophic-to-eutrophic-hay-meadow>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E34b Moist or wet mesotrophic to eutrophic pasture
(<##Q +03 E34b-Moist-or-wet-mesotrophic-to-eutrophic-pasture> AND <#03 +03 E34b-Moist-or-wet-mesotrophic-to-eutrophic-pasture>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E35 Temperate and boreal moist or wet oligotrophic grassland
(<##Q +03 E35-Temperate-and-boreal-moist-or-wet-oligotrophic-grassland> AND <#03 +03 E35-Temperate-and-boreal-moist-or-wet-oligotrophic-grassland>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E41 Snow-bed vegetation
(<##Q +03 E41-Snow-bed-vegetation> AND <#01 E41-Snow-bed-vegetation-specialists>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

4 E41! Snow-bed vegetation
<#03 E41-Snow-bed-vegetation-specialists> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E43a Boreal and arctic acidophilous alpine grassland
((<##Q +03 E43a-Boreal-and-arctic-acidophilous-alpine-grassland> AND <#02 +03 E43a-Boreal-and-arctic-acidophilous-alpine-grassland>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)) NOT (<\$\$N DEG_LAT GR 0> NOT <\$\$N DEG_LAT GR 55>)

4 E43a!Boreal and arctic acidophilous alpine grassland
<#TC E43a-Boreal-and-arctic-acidophilous-alpine-grassland-specialists GR 10> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E43b Temperate acidophilous alpine grassland
((<##Q +03 E43b-Temperate-acidophilous-alpine-grassland> AND <#02 +03 E43b-Temperate-acidophilous-alpine-grassland>) NOT ((<#TC Trees GR 05> OR <#TC Shrubs GR 05>) OR (<#TC Arctic-alpine-dwarf-shrubs GR 25> OR <#TC Lowland-to-alpine-heath-shrubs GR 25>))) NOT <\$\$N DEG_LAT GR 52>

4 E43b!Temperate acidophilous alpine grassland
<#TC E43b-Temperate-acidophilous-alpine-grassland-specialists GR 25> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E44a Arctic-alpine calcareous grassland
(<##Q +03 E44a-Arctic-alpine-calcareous-grassland> AND <#01 E44a-Arctic-alpine-calcareous-grassland-specialists>) NOT ((<#01 E43b-Temperate-acidophilous-alpine-grassland-specialists> OR <#01 E15b-Iberian-oromediterranean-basiphilous-dry-grassland-specialists>) OR (<#TC Trees GR 05> OR <#TC Shrubs GR 05>))

- 2 E44b Alpine and subalpine calcareous grassland of the Balkans and Apennines (<##Q +03 E44b-Alpine-and-subalpine-calcareous-grassland-of-the-Balkans-and-Apennines> AND <#01 E44b-Alpine-and-subalpine-calcareous-grassland-of-the-Balkans-and-Apennines-specialists>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)
- 4 E44b!Alpine and subalpine calcareous grassland of the Balkans and Apennines <#TC E44b-Alpine-and-subalpine-calcareous-grassland-of-the-Balkans-and-Apennines-specialists GR 10> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)
- 2 E52a Thermophilous woodland fringe of base-rich soils (<##Q +03 E52a-Thermophilous-woodland-fringe-of-base-rich-soils> AND (<#02 +03 E52a-Thermophilous-woodland-fringe-of-base-rich-soils> AND <#TC +03 E52a-Thermophilous-woodland-fringe-of-base-rich-soils GR 25>)) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)
- 4 E52a!Thermophilous woodland fringe of base-rich soils <#TC E52a-Thermophilous-woodland-fringe-of-base-rich-soils-specialists GR 50> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)
- 2 E52b Woodland fringe of acidic nutrient-poor soils (<##Q +03 E52b-Woodland-fringe-of-acidic-nutrient-poor-soils> AND (<#02 +03 E52b-Woodland-fringe-of-acidic-nutrient-poor-soils> AND <#TC +03 E52b-Woodland-fringe-of-acidic-nutrient-poor-soils GR 25>)) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)
- 4 E52b!Woodland fringe of acidic nutrient-poor soils <#TC E52b-Woodland-fringe-of-acidic-nutrient-poor-soils-specialists GR 50> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)
- 2 E52c Macaronesian thermophilous woodland fringe (<##Q +03 E52c-Macaronesian-thermophilous-woodland-fringe> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>))
- 4 E52c!Macaronesian thermophilous woodland fringe <#TC E52c-Macaronesian-thermophilous-woodland-fringe-specialists GR 25> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)
- 4 E53 Pteridium aquilinum vegetation (<Pteridium aquilinum GR 50> OR <Pteridium aquilinum GR #T\$>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)
- 2 E54 Lowland moist or wet tall-herb and fern fringe (<##Q +03 E54-Lowland-moist-or-wet-tall-herb-and-fern-fringe> AND <#03 +03 E54-Lowland-moist-or-wet-tall-herb-and-fern-fringe>) NOT (<#TC Trees GR 05> OR (<#TC Shrubs GR 05> OR (<#TC +03 C51a-Tall-helophyte-bed GR 25> OR <#TC +03 C52-Tall-sedge-bed GR 25>)))

2 E55 Montane to subalpine moist or wet tall-herb and fern fringe
(<##Q +03 E55-Montane-subalpine-moist-or-wet-tall-herb-and-fern-fringe> AND <#03 +03 E55-Montane-subalpine-moist-or-wet-tall-herb-and-fern-fringe>) NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

2 E56 Herbaceous forest clearing vegetation
(<##Q +03 E56-Herbaceous-forest-clearing-vegetation> AND <#03 +03 E56-Herbaceous-forest-clearing-vegetation>) NOT (<#TC Trees GR 10> OR <#TC Shrubs GR 25>)

2 E61 Mediterranean inland salt steppe
(<##Q +03 E61-Mediterranean-inland-salt-steppe> NOT (<#01 Continental-inland-salt-steppe-specialists> OR (<#TC Trees GR 05> OR <#TC Shrubs GR 05>))) AND (<\$\$C COAST_EEA EQ N> NOT <\$\$N DEG_LAT GR 46>)

2 E62 Continental inland salt steppe
(<##Q +03 E62-Continental-inland-salt-steppe> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)) AND <\$\$C COAST_EEA EQ N>

2 E63 Temperate inland salt marsh
(<##Q +03 E63-Temperate-inland-salt-marsh> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)) AND <\$\$C COAST_EEA EQ N>

2 E64 Semi-desert salt pan
(<##Q +03 E64-Semi-desert-salt-pan> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)) AND <\$\$C COAST_EEA EQ N>

2 E65 Continental subsaline alluvial pasture and meadow
<##Q +03 E65-Continental-subsaline-alluvial-pasture-and-meadow> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 05>)

4 F11 Shrub tundra
(((<#TC Arctic-ericoid-dwarf-shrubs GE \$50> NOT (<#TC Sphagnum GR 25> OR <#TC Trees GR 10>)) AND <\$\$N DEG_LAT GR 60>) OR (((<#TC Arctic-alpine-dwarf-shrubs GE \$50> OR <#TC Lowland-to-alpine-heath-shrubs GE \$50>) NOT (<#TC Sphagnum GR 25> OR <#TC Trees GR 10>)) AND (<\$\$N DEG_LAT GR 65> OR <\$\$C Country EQ Iceland>))

4 F12 Moss and lichen tundra
(((<#TC Arctic-alpine-bryophytes-lichens GR #T\$> AND <#02 Arctic-alpine-bryophytes-lichens>) NOT (<#TC Sphagnum GR 05> OR <#TC Trees GR 05>)) AND (<\$\$N DEG_LAT GR 65> OR <\$\$C Country EQ Iceland>)

4 F21 Subarctic and alpine dwarf Salix scrub
<#TC Arctic-alpine-dwarf-willows GE \$25>

4 F22a Alpine and subalpine ericoid heath
(((<#TC Alpine-subalpine-ericoid-dwarf-shrubs GE \$50> OR <#TC Dryas GE \$50>))

OR ((<#TC Arctic-alpine-dwarf-shrubs GE \$50> OR <#TC Lowland-to-alpine-heath-shrubs GE \$50>) AND (<#01 Alpine-subalpine-ericoid-dwarf-shrubs> OR <#01 Alpine-acidophilous-herbs>)))
OR ((<#TC Arctic-alpine-dwarf-shrubs GE \$50> OR <#TC Lowland-to-alpine-heath-shrubs GE \$50>) AND (<\$\$N Altitude (m) GR 800> NOT <\$\$N DEG_LAT GR 65>)))
NOT ((<#TC Sphagnum GR 25> OR <#TC Bog-herbs GR 10>) OR (<#TC Trees GR 05> OR <Pinus mugo GR 25>))

4 F22b Alpine and subalpine Juniperus scrub

((<#TC Arctic-alpine-shrubby-junipers GR 25> AND <#TC Arctic-alpine-shrubby-junipers GE \$50>) NOT <#TC Trees GR 05>) NOT (<\$\$N Altitude (m) GR 0> NOT <\$\$N Altitude (m) GR 500>)

4 F22c Subalpine genistoid scrub of the Amphi-Adriatic region

(<#TC Adriatic-Genista GR 25> AND <#TC Adriatic-Genista GE \$50>) NOT (<#TC Trees GR 10> OR <#TC Shrubs GR 25>)

4 F23 Subalpine and subarctic deciduous scrub

((<#TC Subalpine-and-subarctic-deciduous-shrubs GR 25> AND <#TC Subalpine-and-subarctic-deciduous-shrubs GE \$50>) NOT (<#TC Sphagnum GR 25> OR <#TC Trees GR 10>)) 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 F24 Subalpine Pinus mugo scrub

((<Pinus mugo GR 15> AND <#TC Pinus mugo GR #TC Shrubs EXCEPT #TC Pinus mugo>) NOT ((<#TC Sphagnum GR 25> OR <#TC Bog-herbs 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 F24! Subalpine Pinus mugo scrub

(<Pinus mugo aggr. GR 15> AND <#TC Pinus mugo aggr. GR #TC Trees|#TC Shrubs EXCEPT #TC Pinus mugo aggr.>) NOT ((<#TC Sphagnum GR 25> OR <#TC Bog-herbs GR 10>) AND (<\$\$N DEG_LON GR 7.5> NOT (<\$\$N Altitude (m) GE 0> NOT <\$\$N Altitude (m) GR 900>)))

4 F31a Lowland to montane temperate and submediterranean Juniperus scrub

(<Juniperus communis subsp. communis GR 25> AND <#TC Juniperus communis subsp. communis GE \$50>) NOT <#TC Trees GR 10>

4 F31b Temperate Rubus scrub

(<#TC Temperate-Rubus GR 50> OR <#TC Temperate-Rubus GE \$50>) NOT <#TC Trees GR 10>

4 F31c Lowland to montane temperate and submediterranean genistoid scrub

(<#TC Genistoid-shrubs GR 25> AND <#TC Genistoid-shrubs GE \$50>) NOT <#TC Trees GR 10>

---4 F31cx SUBTYPE Lowland to montane temperate genistoid scrub
 ---((<#TC Temperate-genistoid-shrubs GR 25> AND <#TC Temperate-genistoid-shrubs GR
 #TC Shrubs EXCEPT #TC Temperate-genistoid-shrubs>) AND <#TC Temperate-genistoid-
 shrubs GR #TC Atlantic-heath-shrubs|#TC Lowland-to-alpine-heath-shrubs>) NOT <#TC
 Trees GR 10>

---4 F31cy SUBTYPE Lowland to montane Mediterranean genistoid scrub (Cytisetalia
 scopario-striati and Cytiso villosi-Telinetalia monspessulanae)
 ---(<#TC Mediterranean-genistoid-shrubs GR 50> AND <#TC Mediterranean-genistoid-
 shrubs GR #TC Shrubs EXCEPT #TC Mediterranean-genistoid-shrubs>) NOT <#TC Trees GR
 10>

4 F31d Balkan-Anatolian submontane genistoid scrub
 (<Genista lydia GR 25> AND <Genista lydia GE \$50>) NOT (<#TC Trees GR 10> OR <#TC
 Shrubs GR 25>)

4 F31e Temperate and submediterranean thorn scrub
 ((<#TC Temperate-submediterranean-deciduous-shrubs GR 50> AND <#TC Temperate-
 submediterranean-deciduous-shrubs GE \$50>) OR
 (<#TC Mediterranean-Rubus GR 50> OR <#TC Mediterranean-Rubus GE \$50>)) NOT
 (<#TC Mesomediterranean-maquis-shrubs GR 05> OR <#TC Trees GR 10>)

---4 F31ew SUBTYPE Temperate and submediterranean thorn scrub - without Rubus
 ---(<#TC Temperate-submediterranean-deciduous-shrubs GR 50> AND <#TC Temperate-
 submediterranean-deciduous-shrubs GE \$50>) NOT <#TC Trees GR 10>

---4 F31ex SUBTYPE Mediterranean Rubus scrub
 ---(<#TC Mediterranean-Rubus GR 50> AND <#TC Mediterranean-Rubus GE \$50>) NOT
 <#TC Trees GR 10>

---4 F31ey SUBTYPE Temperate thorn scrub
 ---(<#TC Temperate-deciduous-shrubs GR 50> AND <#TC Temperate-deciduous-shrubs
 GE \$50>) NOT <#TC Trees GR 20>

---4 F31ez SUBTYPE Submediterranean thorn scrub
 ---(<#TC Submediterranean-deciduous-shrubs GR 50> AND <#TC Submediterranean-
 deciduous-shrubs GE \$50>) NOT <#TC Trees GR 10>

4 F31f Low steppic scrub
 (<#TC Low-steppic-shrubs GR 25> AND <#TC Low-steppic-shrubs GE \$50>) NOT <#TC
 Trees GR 10>

4 F31g Corylus avellana scrub
 (<Corylus avellana GR 50> AND <Corylus avellana GE \$50>) NOT <#TC Trees GR 10>

4 F31h Temperate forest clearing scrub

(<#TC Forest-clearing-trees-and-shrubs GR 50> AND <#TC Forest-clearing-trees-and-shrubs GE \$50>) NOT <\$\$N DEG_LON GR 60>

4 F41 Wet heath

((<Erica tetralix GR 25> AND <Erica tetralix GE \$50>) OR ((<#TC Dry-and-wet-heath-shrubs GR 25> AND <#TC Dry-and-wet-heath-shrubs GE \$50>) AND <#02 Wet-heath-herbs-and-mosses>)) NOT ((<#TC Trees GR 10> OR <#TC Shrubs GR 10>) OR <#01 Raised-bog-Sphagnum>)

4 F42 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>) NOT (<#TC Wet-heath-herbs-and-mosses|#TC Arctic-alpine-dwarf-shrubs|#TC Arctic-ericoid-dwarf-shrubs|#TC Alpine-subalpine-ericoid-dwarf-shrubs GR 25> OR (<#TC Trees GR 10> OR <#TC Shrubs GR 10>))

7 F43 Macaronesian heath

(((<#TC Macaronesian-low-heath-shrubs GR 25> AND <#TC Macaronesian-low-heath-shrubs GE \$50>) 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 F51 Mediterranean maquis and arborescent matorral

((<#TC Mesomediterranean-maquis-shrubs GR 25> AND <#TC Mesomediterranean-maquis-shrubs GE \$50>) NOT <#TC Trees GR 10>) NOT ((<\$\$N DEG_LON GR -50> NOT <\$\$N DEG_LON GR -12>) OR <\$\$N DEG_LAT GR 47>)

4 F53 Submediterranean pseudomaquis

(((((<#TC Mesomediterranean-maquis-shrubs GR 20> OR <#TC Sclerophyllous-tree-Quercus GR 05>) AND (<#TC Submediterranean-deciduous-shrubs GR 20> OR <#TC Thermophilous-oak-forest-trees GR 05>))) OR (<Buxus sempervirens GR 25> AND <#TC Buxus sempervirens GE \$50>)) NOT <#TC Trees GR 15>) NOT <\$\$N DEG_LAT GR 46.5>

4 F54 Spartium junceum scrub

<Spartium junceum GR 25> AND <Spartium junceum GE \$50>

4 F55 Thermo-Mediterranean arid scrub

(<#TC Thermomediterranean-shrubs GR 25> AND <#TC Thermomediterranean-shrubs GE \$50>) NOT <#TC Trees GR 10>

4 F61a Western basiphilous garrigue

(((<#TC W-basic-garrigue-shrubs GR 25> AND <#TC W-basic-garrigue-shrubs GE \$50>) AND <#01 W-basic-garrigue-herbs>) OR ((<#TC Pan-Mediterranean-basic-garrigue-shrubs GR 25> AND <#TC Pan-Mediterranean-basic-garrigue-shrubs GE \$50>) AND (<#03 W-basic-garrigue-herbs> AND <### W-basic-garrigue-herbs GR ### E-garrigue-herbs>)))

NOT (<#01 Phrygana-shrubs> OR <#TC Trees GR 10>)

4 F61b Western acidophilous garrigue
(((<#TC W-acidic-garrigue-shrubs GR 25> AND <#TC W-acidic-garrigue-shrubs GE \$50>) AND <#01 W-acidic-garrigue-herbs>) OR
((<#TC Pan-Mediterranean-acidic-garrigue-shrubs GR 25> AND <#TC Pan-Mediterranean-acidic-garrigue-shrubs GE \$50>) AND <#03 W-acidic-garrigue-herbs>))
NOT (<#01 Phrygana-shrubs> OR <#TC Trees GR 10>)

4 F62 Eastern garrigue
((<#TC E-garrigue-shrubs GR 25> AND <#TC E-garrigue-shrubs GE \$50>) OR
(((<#TC Pan-Mediterranean-acidic-garrigue-shrubs GR 25> AND <#TC Pan-Mediterranean-acidic-garrigue-shrubs GE \$50>) AND <#03 E-garrigue-herbs>) OR
((<#TC Pan-Mediterranean-basic-garrigue-shrubs GR 25> AND <#TC Pan-Mediterranean-basic-garrigue-shrubs GE \$50>) AND <#03 E-garrigue-herbs>)))
NOT <#TC Trees GR 10>

4 F65 Macaronesian garrigue
((<#TC Macaronesian-garrigue-shrubs GR 25> AND <#TC Macaronesian-garrigue-shrubs GE \$50>) OR (<Cistus monspeliensis GR 25> AND <#01 Macaronesian-garrigue-shrubs>))
NOT <#TC Trees GR 10>

4 F67 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 F68a Mediterranean halo-nitrophilous scrub
(((<#TC Mediterranean-halo-nitrophilous-scrub-species GE \$50> AND <#02 Mediterranean-halo-nitrophilous-scrub-species>) NOT <#TC Trees GR 10>) NOT <\$\$N DEG_LON GR 40>

4 F68a!Mediterranean halo-nitrophilous scrub
<#TC Macaronesian-xero-halophile-scrub-species GE \$50> NOT <#TC Trees GR 10>

4 F68b Aralo-Caspian semi-desert
((((<#TC Aralo-Caspian-semi-desert-species GE \$50> AND <#03 Aralo-Caspian-semi-desert-species>) AND <### Aralo-Caspian-semi-desert-species GE ### Semi-desert-sand-dune-with-sparse-scrub>) AND <### Aralo-Caspian-semi-desert-species GR ### +03 E12c-Desert-steppe>) NOT <#TC Trees GR 10>) NOT (<\$\$N DEG_LON GR -50> NOT <\$\$N DEG_LON GR 42>)

4 F68c Semi-desert sand dune with sparse scrub
(((<#TC Semi-desert-sand-dune-with-sparse-scrub GE \$50> AND <#02 Semi-desert-sand-dune-with-sparse-scrub>) AND <### Semi-desert-sand-dune-with-sparse-scrub GR ### Aralo-Caspian-semi-desert-species>) NOT <#TC Trees GR 10>) NOT (<\$\$N DEG_LON GR -50> NOT <\$\$N DEG_LON GR 42>)

4 F71 Western Mediterranean coastal garrigue
(<#TC W-Mediterranean-coastal-spiny-shrubs GR 25> AND <#TC W-Mediterranean-coastal-spiny-shrubs GE \$50>) NOT <#TC Trees GR 10>

4 F73 Eastern Mediterranean spiny heath (phrygana)
(<#TC Phrygana-shrubs GR 25> AND <#TC Phrygana-shrubs GE \$50>) NOT <#TC Trees GR 10>

4 F74a Western Mediterranean mountain hedgehog-heath
(<#TC W-Mediterranean-mountain-thorny-cushion-shrubs GR 25> AND <#TC W-Mediterranean-mountain-thorny-cushion-shrubs GE \$50>) NOT <#TC Trees GR 10>

4 F74b Central Mediterranean mountain hedgehog-heath
(<#TC C-Mediterranean-mountain-thorny-cushion-shrubs GR 25> AND <#TC C-Mediterranean-mountain-thorny-cushion-shrubs GE \$50>) NOT <#TC Trees GR 10>

4 F74c Eastern Mediterranean mountain hedgehog-heath
(<#TC E-Mediterranean-mountain-thorny-cushion-shrubs GR 25> AND <#TC E-Mediterranean-mountain-thorny-cushion-shrubs GE \$50>) NOT <#TC Trees GR 10>

4 F74d Canarian mountain hedgehog-heath
<#TC Teide-summit-plants GE \$50> NOT <#TC Trees GR 10>

4 F81 Canary Island xerophytic scrub
(<#TC Canary-Island-xerophytic-scrub-species GR 20> AND <#TC Canary-Island-xerophytic-scrub-species GR #TC Madeiran-xerophytic-scrub-species>) NOT <#TC Trees GR 10>

4 F81! Canary Island xerophytic scrub
((<#TC Canary-Island-xerophytic-scrub-species GR 20> AND <#TC Canary-Island-xerophytic-scrub-species EQ #TC Madeiran-xerophytic-scrub-species>) NOT <#TC Trees GR 10>) NOT <\$\$N DEG_LAT GR 30>

4 F82 Madeiran xerophytic scrub
((<#TC Madeiran-xerophytic-scrub-species GR 20> AND <#TC Madeiran-xerophytic-scrub-species GR #TC Canary-Island-xerophytic-scrub-species>) NOT <#TC Trees GR 10>) AND <\$\$N DEG_LON GR -20>

4 F82! Madeiran xerophytic scrub
((<#TC Madeiran-xerophytic-scrub-species GR 20> AND <#TC Madeiran-xerophytic-scrub-species EQ #TC Canary-Island-xerophytic-scrub-species>) NOT <#TC Trees GR 10>) AND <\$\$N DEG_LAT GR 30>

4 F91 Temperate riparian scrub
((<#TC Temperate-riparian-shrubs GR 50> 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 GR10>

4 F92 Salix fen scrub
(<#TC Temperate-fen-shrubs GR 50> AND <#TC Temperate-fen-shrubs GE \$50>) NOT
<#TC Trees GR 10>

4 F93 Mediterranean riparian scrub
((<#TC Mediterranean-riparian-shrubs GR 30> AND <#TC Mediterranean-riparian-shrubs
GE \$50>) OR ((<Tamarix ramosissima GR 30> AND <Tamarix ramosissima GE \$50>) AND
<#01 Mediterranean-riparian-species>)) NOT <#TC Trees GR 10>

4 F94 Semi-desert riparian scrub
((<#TC Semi-desert-riparian-shrubs GR 15> AND <#TC Semi-desert-riparian-shrubs GE
\$50>) OR ((<Tamarix ramosissima GR 30> AND <Tamarix ramosissima GE \$50>) AND
<#01 Semi-desert-riparian-shrubs>)) NOT <#TC Trees GR 10>

4 G11 Temperate and boreal 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>

4 G12a Alnus glutinosa-Alnus incana forest on mineral soils
((<#TC Alnus GR 25> AND <#TC Alnus GR #TC Trees EXCEPT #TC Alnus>) OR
((<Fraxinus excelsior GR 25> AND <#TC Fraxinus excelsior GR #TC Trees EXCEPT #TC
Fraxinus excelsior>) AND (<#TC Temperate-upland-riparian-forest-species GR 10> AND
<#TC Temperate-riparian-forest-species GR 10>))) NOT
<#TC Alder-carr-species GR 03>

4 G12b Temperate and boreal hardwood riparian forest
(<#TC Floodplain-hardwood-trees GR 50> AND (<#TC Temperate-riparian-forest-species
GR 15> AND <#02 Temperate-riparian-forest-species>)) NOT
(((<#TC Alder-carr-species GR 03> OR <#TC Temperate-upland-riparian-forest-species GR
03>) OR <#01 Temperate-upland-riparian-forest-species>) OR <Platanus orientalis GR
00>)

4 G13 Mediterranean and Macaronesian riparian forest
<Platanus orientalis GR 25> OR ((<#TC Softwood-riparian-trees GR 25> OR <#TC
Softwood-riparian-trees GR #TC Trees EXCEPT #TC Softwood-riparian-trees>)
AND <#02 Mediterranean-riparian-species>)

4 G14 Broadleaved swamp forest on non-acid peat
(<Alnus glutinosa GR 25> AND <#TC Alder-carr-species GR 10>) NOT <Salix cinerea GR
25>

4 G15 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 G16a Fagus forest on non-acid soils

(((<#TC Fagus-sylvatica-orientalis GR 30> AND <#TC Fagus-sylvatica-orientalis GE #TC Trees EXCEPT #TC Fagus-sylvatica-orientalis>) AND <### +04 Eutrophic-deciduous-forest-species GR ### +04 Acidophilous-forest-species>) NOT <#TC +04 Acidophilous-forest-species GR 25>) NOT (<\$C Country EQ Ireland> OR (<\$C Country EQ United Kingdom> AND <\$N DEG_LAT GR 53>))

4 G16b Fagus forest on acid soils

(((<#TC Fagus-sylvatica-orientalis GR 30> AND <#TC Fagus-sylvatica-orientalis GE #TC Trees EXCEPT #TC Fagus-sylvatica-orientalis>) AND <### +04 Acidophilous-forest-species GR ### +04 Eutrophic-deciduous-forest-species>) NOT <#TC +04 Eutrophic-deciduous-forest-species GR 25>) NOT (<\$C Country EQ Ireland> OR (<\$C Country EQ United Kingdom> AND <\$N DEG_LAT GR 53>))

4 G17a Temperate and submediterranean thermophilous deciduous forest

((<#TC Thermophilous-oak-forest-trees GR 15> AND <#TC Thermophilous-oak-forest-trees GR #TC Trees EXCEPT #TC Thermophilous-oak-forest-trees>) OR ((<#TC Quercus petraea-pyrenaica-robur GR 15> AND <#TC Quercus petraea-pyrenaica-robur GR #TC Trees EXCEPT #TC Quercus petraea-pyrenaica-robur>) AND <##D +04 Thermophilous-oak-forest-species>)) NOT (<#TC +04 Acidophilous-forest-species GR 15> OR <#TC +04 Eutrophic-deciduous-forest-species GR 15>)

4 G17b Mediterranean thermophilous deciduous forest

<Quercus ithaburensis GR 15> AND <#TC Quercus ithaburensis GR #TC Trees EXCEPT #TC Quercus ithaburensis>

4 G18 Acidophilous Quercus forest

(((<#TC Quercus petraea-pyrenaica-robur GR 15> AND <#TC Quercus petraea-pyrenaica-robur GR #TC Trees EXCEPT #TC Quercus petraea-pyrenaica-robur>) OR (<#TC Castanea sativa GR 15> AND <#TC Castanea sativa GR #TC Trees EXCEPT #TC Castanea sativa>)) AND <##D +04 Acidophilous-forest-species>) NOT (<#TC +04 Thermophilous-oak-forest-species GR 15> OR <#TC +04 Eutrophic-deciduous-forest-species GR 15>)

4 G19a Boreal-nemoral mountain Betula 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>

4 G19a! Boreal-nemoral mountain Betula 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 G19a- Boreal-nemoral mountain Betula 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 G19b Southern European mountain Betula and Populus tremula forest on mineral soils
<Betula pendula var. fontqueri GR 15> AND <#TC Betula pendula var. fontqueri GR #TC Trees EXCEPT #TC Betula pendula var. fontqueri>

4 G19b! 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 G19b- 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 G1Aa Carpinus and Quercus mesic deciduous forest
(((<#TC Oak-hornbeam-forest-trees GR 50> AND <#TC +04 Eutrophic-deciduous-forest-species GR 05>) AND <#D +04 Eutrophic-deciduous-forest-species>) OR (<#TC Noble-hardwood-trees-generalists GR 50> NOT (<#02 Ravine-forest-specialists> AND <#TC Ravine-forest-specialists GR 05>))) NOT (<#TC Temperate-riparian-forest-species GR 05> OR (<#TC +04 Thermophilous-oak-forest-species GR 15> OR <#TC +04 Acidophilous-forest-species GR 15>))

4 G1Ab 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>) AND <#D +04 Eutrophic-deciduous-forest-species>) OR (<#TC Noble-hardwood-trees-generalists GR 25> AND (<#02 Ravine-forest-specialists> AND <#TC Ravine-forest-specialists GR 05>))) NOT ((<#TC Temperate-riparian-forest-species GR 05> OR <#TC Softwood-riparian-trees GR 05>) OR (<#TC +04 Thermophilous-oak-forest-species GR 15> OR <#TC +04 Acidophilous-forest-species GR 15>))

4 G1Ba Alnus cordata forest

(<Alnus cordata GR 25> AND <#TC Alnus cordata GR #TC Trees EXCEPT #TC Alnus cordata>) NOT <\$\$N DEG_LAT GR 43>

4 G1C Broadleaved deciduous planted forests 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>

4 G1C! Broadleaved deciduous planted forests of non site-native trees
(<#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>))

4 G21 Mediterranean evergreen Quercus forest
<#TC Sclerophyllous-tree-Quercus GR 25> AND <#TC Sclerophyllous-tree-Quercus GR #TC Trees EXCEPT #TC Sclerophyllous-tree-Quercus>

4 G21! Mediterranean evergreen Quercus forest
(<Quercus coccifera GR 25> AND <#TC Quercus coccifera GR #TC Trees EXCEPT #TC Quercus coccifera>) AND <\$\$N DEG_LON GR 19>

4 G22 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>

4 G22! Mainland laurophyllous forest
(<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 G23 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>)

4 G23! Macaronesian laurophyllous forest
(<Prunus lusitanica GR 25> AND (<#TC Prunus lusitanica GR #TC Trees> AND <#TC Prunus lusitanica GR #TC Shrubs EXCEPT #TC Prunus lusitanica>)) NOT <\$\$N DEG_LON GR -10>

4 G24 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 G25a Phoenix theophrasti vegetation
<Phoenix theophrasti GR 25>
- 4 G25b Phoenix canariensis vegetation
<Phoenix canariensis GR 25>
- 4 G26 Ilex aquifolium forest
<Ilex aquifolium GR 25> AND (<#TC Ilex aquifolium GR #TC Trees EXCEPT #TC Ilex aquifolium> AND <#TC Ilex aquifolium GR #TC Shrubs EXCEPT #TC Ilex aquifolium>)
- 4 G27 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 G28 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 G31a 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-herbs GR 10> OR <#TC Sphagnum GR 25>))) AND (<\$\$N Altitude (m) GR 700> NOT <\$\$N DEG_LAT GR 52>)
- 4 G31b Temperate mountain Abies forest
(<#TC Temperate-Abies GR 25> AND <#TC Temperate-Abies GR #TC Trees EXCEPT #TC Temperate-Abies>) 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>))
- 4 G31c Mediterranean mountain Abies forest
(<#TC Mediterranean-Abies GR 25> AND <#TC Mediterranean-Abies GR #TC Trees EXCEPT #TC Mediterranean-Abies>) OR ((<Abies alba GR 25> AND <#TC Abies alba GR #TC Trees EXCEPT #TC Abies alba>) AND (<\$\$C Country EQ Italy> NOT <\$\$N DEG_LAT GR 43.75>))
- 4 G32 Temperate subalpine Larix, Pinus cembra and Pinus uncinata forest
(<#TC Subalpine-conifers GR 15> AND <#TC Subalpine-conifers GR #TC Trees EXCEPT #TC Subalpine-conifers>) AND (<#01 Subalpine> OR <\$\$N Altitude (m) GR 1000>) NOT <\$\$N DEG_LAT GR 49.5>
- 4 G32! Temperate subalpine Larix, Pinus cembra and Pinus uncinata forest
((<Pinus uncinata GR 15> AND <#TC Pinus uncinata GR #TC Trees EXCEPT #TC Pinus uncinata>) AND (<#01 Subalpine> OR <\$\$N Altitude (m) GR 1200>)) NOT <\$\$N DEG_LON GR 11>

4 G34a 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-Pinetea-species>) OR <#01 W-Mediterranean-mountain-thorny-cushion-shrubs>) OR <Pinus nigra GR 00>) OR <#TC Sphagnum GR 10>) OR <#TC Bog-herbs GR 10>) OR <#02 Bog-herbs>) OR <#TC Alder-carr-species GR 15>) OR <#TC +04 Eutrophic-deciduous-forest-species GR 15>) OR <#01 Atlantic-forest-species>)) 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>) OR (<\$N DEG_LON GR 4> AND <\$N DEG_LAT GR 56.5>)) 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 G34b 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 <#02 Erico-Pinetea-species>) NOT (((<#TC +04 Acidophilous-forest-species GR 15> OR <#TC +04 Acidophilous-forest-species GR 15>) OR <#01 Junipero-Pinetea-species>) OR <#01 W-Mediterranean-mountain-thorny-cushion-shrubs>))

4 G34c 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> NOT <\$N DEG_LAT GR 46>))

4 G34d Mediterranean montane *Cedrus* forest
 (<Cedrus libani GR 15> AND <#TC Cedrus libani GR #TC Trees EXCEPT #TC Cedrus libani>) OR ((<Cedrus atlantica GR 15> AND <#TC Cedrus atlantica GR #TC Trees EXCEPT #TC Cedrus atlantica>) NOT <\$N DEG_LAT GR 36>))

4 G36 Mediterranean and Balkan subalpine *Pinus heldreichii*-*Pinus peuce* forest
 <#TC Pinus-heldreichii-peuce GR 15> AND <#TC Pinus-heldreichii-peuce GR #TC Trees EXCEPT #TC Pinus-heldreichii-peuce>

4 G37 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>) OR <\$C COAST_EEA EQ ATL>))

4 G38 *Pinus canariensis* forest

(<Pinus canariensis GR 15> AND <#TC Pinus canariensis GR #TC Trees EXCEPT #TC Pinus canariensis>) NOT <\$\$N DEG_LON GR -15>

4 G39a Taxus baccata forest

(<Taxus baccata GR 25> AND <#TC Taxus baccata GR #TC Trees|#TC Shrubs EXCEPT #TC Taxus baccata>) AND <#01 +04 Eutrophic-deciduous-forest-species>

4 G39b Mediterranean Cupressaceae forest

<#TC Cupressaceae-trees GR 15> AND <#TC Cupressaceae-trees GR #TC Trees EXCEPT #TC Cupressaceae-trees>

4 G39b!Mediterranean Cupressaceae forest

(<Cupressus sempervirens GR 15> AND <#TC Cupressus sempervirens GR #TC Trees EXCEPT #TC Cupressus sempervirens>) AND <\$\$N DEG_LON GR 23.5>

4 G39c Macaronesian Juniperus forest

<#TC Macaronesian-junipers GR 15> AND <#TC Macaronesian-junipers GR #TC Trees EXCEPT #TC Macaronesian-junipers>

4 G3A Dark taiga

((<#TC Dark-taiga-trees GR 25> AND <#TC Dark-taiga-trees GR #TC Trees EXCEPT #TC Dark-taiga-trees>) NOT (<#TC Bog-herbs GR 10> OR <#TC Sphagnum GR 25>)) 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>)

4 G3B Pinus sylvestris light taiga

((<Pinus sylvestris GR 15> AND <#TC Pinus sylvestris GR #TC Trees EXCEPT #TC Pinus sylvestris>) NOT (<#TC Bog-herbs GR 10> OR <#TC Sphagnum GR 25>)) 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>)

4 G3C Larix light taiga

(<Larix sibirica GR 15> AND <#TC Larix sibirica GR #TC Trees EXCEPT #TC Larix sibirica>) NOT (<#TC Bog-herbs GR 10> OR <#TC Sphagnum GR 25>)

4 G3Da Pinus and Larix mire forest

((<#TC Bog-Pinus GR 10> AND (<#TC Bog-Pinus GR #TC Trees EXCEPT #TC Bog-Pinus> AND <#TC Bog-Pinus GR #TC Shrubs EXCEPT #TC Bog-Pinus>)) OR (<Larix sibirica GR 10> AND <#TC Larix sibirica GR #TC Trees EXCEPT #TC Larix sibirica>)) AND (<#TC Bog-herbs GR 10> OR <#TC Sphagnum GR 25>)

4 G3Db Picea mire forest

((<#TC Picea GR 10> AND <#TC Picea GR #TC Trees EXCEPT #TC Picea>) AND <#TC Picea GR #TC Pinus mugo>) AND (<#TC Bog-herbs GR 10> OR <#TC Sphagnum GR 25>)

- 4 G3F2 Coniferous planted forests 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 G3F2!Coniferous planted forests 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>)
- 4 G3F2-Coniferous planted forests 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 G3F2-Coniferous planted forests 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 G3F2-Coniferous planted forests 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 -50> NOT <\$\$N DEG_LON GR 4>))))))))))
- 4 G3F2-Coniferous planted forests of non site-native trees
((<#TC Picea GR 25> AND <#TC Picea GR #TC Trees EXCEPT #TC Picea>) NOT (<#TC Bog-herbs GR 10> OR <#TC Sphagnum GR 25>)) 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 G3F2.Coniferous planted forests 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 G3F2.Coniferous planted forests 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 G3F2.Coniferous planted forests 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 G3F2.Coniferous planted forests 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 48.5>) OR (<\$\$N Altitude
(m) GR 0> NOT <\$\$N Altitude (m) GR 300>))

4 G3F2.Coniferous planted forests 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>

Appendix E: Lists of indicator species of the revised EUNIS grassland habitat types (Group E), heathland, scrub and tundra habitat types (Group F), and forest habitat types (Group G)

R11 - [E11a] Pannonian and Pontic sandy steppe

*Diagnostic species (phi coefficient * 100)*

Koeleria glauca	61.3	Festuca beckeri	58.7
Euphorbia seguieriana	51.5	Helichrysum arenarium	45.1
Bassia laniflora	42.7	Festuca vaginata	40.8
Carex colchica	39.6	Secale sylvestre	38.7
Centaurea arenaria aggr.	38.7	Thymus pallasianus	37.6
Jurinea cyanoides	36.9	Polygonum arenarium	36.6
Astragalus varius	35.7	Artemisia campestris	34.9
Pilosella echiioides	34.8	Gypsophila paniculata	32.6
Silene borysthenica	32.4	Asperula graveolens	32.4
Jacobaea borysthenica	31.5	Achillea micrantha	31.5
Veronica dillenii	31.2	Odontarrhena tortuosa	28.5
Erysimum canum	28.5	Tragopogon ucrainicus	28.3
Syntrichia ruralis	27.9	Minuartia viscosa	27.9
Stipa borysthenica	27.6	Poa bulbosa	27.4
Erysimum montanum	25.9	Seseli tortuosum	25.7
Linaria genistifolia	25.3	Tragopogon borystenicus	25.0
Astragalus onobrychis	24.8	Agropyron dasyanthum	24.7
Erysimum diffusum	24.3	Jurinea longifolia	23.6
Dianthus arenarius	23.5	Tragopogon ruthenicus	23.0
Stipa anomala	22.9	Anthemis ruthenica	22.9
Myosotis stricta	22.8	Chondrilla juncea	22.6
Anchusa gmelinii	22.6	Dianthus platyodon	22.3
Dianthus bessarabicus	21.9	Herniaria polygama	21.8
Alyssum minutum	21.3	Lomelosia argentea	20.9
Peucedanum arenarium	20.8	Artemisia arenaria	20.8
Silene otites aggr.	20.4	Cladonia foliacea	20.4
Silene subconica	20.3	Cladonia polycarpoides	20.2
Cerastium semidecandrum	19.3	Silene chlorantha	19.1
Silene conica	19.0	Scorzonera ensifolia	18.9
Plantago arenaria	18.9	Alyssum turkestanicum	18.7
Elymus uralensis	18.3	Carex supina	18.3
Leymus racemosus	18.2	Cladonia rangiformis	18.2
Anisantha tectorum	18.1	Veronica verna	17.8
Ephedra distachya	17.8	Stipa pennata	17.6
Centaurea gerberi	17.5	Alyssum montanum	17.5
Corynephorus canescens	17.4	Bromus squarrosus	17.2
Alyssum hirsutum	17.2	Agropyron tanaiticum	17.2
Allium guttatum	17.1	Dianthus squarrosus	16.7
Centaurea breviceps	16.7	Festuca wagneri	16.5

Dianthus borbasii	16.5	Minuartia glomerata	16.4
Achillea ochroleuca	16.4	Corispermum nitidum	16.1
Sedum urvillei	16.0	Silene densiflora	15.9
Festuca psammophila	15.7	Tragopogon floccosus	15.5
Cytisus borysthenticus	15.5	Tragus racemosus	15.3
Chondrilla graminea	15.3	Cetraria aculeata	15.3
Potentilla cinerea	15.1		

Constant species (occurrence frequencies)

Koeleria glauca	51.0	Artemisia campestris	47.0
Euphorbia seguieriana	45.0	Helichrysum arenarium	38.0
Festuca beckeri	37.0	Poa bulbosa	36.0
Syntrichia ruralis	25.0	Rumex acetosella	25.0
Eryngium campestre	25.0	Chondrilla juncea	21.0
Bassia laniflora	21.0	Veronica dillenii	20.0
Cerastium semidecandrum	20.0	Carex colchica	20.0
Pilosella echioides	19.0	Secale sylvestre	18.0
Polygonum arenarium	18.0	Myosotis stricta	18.0
Festuca vaginata	18.0	Corynephorus canescens	18.0
Centaurea arenaria aggr.	18.0	Astragalus onobrychis	18.0
Silene otites aggr.	16.0	Potentilla cinerea	16.0
Linaria genistifolia	16.0	Jurinea cyanoides	16.0
Cynodon dactylon	16.0	Thymus serpyllum	15.0
Thymus pallasianus	15.0	Anisantha tectorum	15.0
Gypsophila paniculata	14.0	Galium verum	14.0
Euphorbia cyparissias	14.0	Erysimum diffusum	14.0
Draba verna aggr.	14.0	Cladonia foliacea	14.0
Ceratodon purpureus	14.0	Astragalus varius	14.0
Seseli tortuosum	13.0	Medicago falcata	13.0
Cladonia rangiformis	13.0	Bromus squarrosus	13.0
Veronica verna	12.0	Stachys recta	12.0
Silene borysthenea	12.0	Potentilla argentea	12.0
Cetraria aculeata	12.0	Calamagrostis epigejos	12.0
Bothriochloa ischaemum	12.0	Trifolium arvense	11.0
Stipa pennata	11.0	Stipa capillata	11.0
Polytrichum piliferum	11.0	Odontarrhena tortuosa	11.0
Jacobaea borysthenea	11.0	Asperula graveolens	11.0
Anthemis ruthenica	11.0	Achillea micrantha	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Festuca vaginata	11.0	Festuca beckeri	9.0
Koeleria glauca	8.0		

R12 - [E11b] Cryptogam- and annual-dominated vegetation on siliceous rock outcrops

*Diagnostic species (phi coefficient * 100)*

Polytrichum piliferum	38.3	Scleranthus perennis	33.8
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Racomitrium canescens	29.4	Cladonia foliacea	28.1
Syntrichia ruralis	26.0	Draba verna aggr.	22.7
Sedum album	22.5	Sedum rupestre	20.7
Jasione montana	20.3	Sedum acre	19.5
Ceratodon purpureus	19.0	Corynephorus canescens	18.9
Veronica verna	18.5	Veronica dillenii	18.5
Poa bulbosa	17.9	Trifolium arvense	17.6
Rumex acetosella	17.3	Cladonia rangiformis	16.6
Cetraria aculeata	16.5	Cladonia furcata	16.3
Gagea bohemica	16.2	Arenaria serpyllifolia	15.8
Myosotis stricta	15.1	Cerastium pumilum	15.1
Sedum sexangulare	15.0		
<i>Constant species (occurrence frequencies)</i>			
Polytrichum piliferum	45.0	Rumex acetosella	38.0
Pilosella officinarum	34.0	Scleranthus perennis	30.0
Trifolium arvense	24.0	Sedum album	24.0
Sedum acre	24.0	Draba verna aggr.	24.0
Arenaria serpyllifolia	24.0	Poa bulbosa	23.0
Jasione montana	23.0	Ceratodon purpureus	23.0
Syntrichia ruralis	22.0	Racomitrium canescens	21.0
Corynephorus canescens	20.0	Cladonia foliacea	20.0
Sedum rupestre	18.0	Potentilla argentea	18.0
Festuca ovina	18.0	Plantago lanceolata	17.0
Hypnum cupressiforme	17.0	Euphorbia cyparissias	17.0
Artemisia campestris	17.0	Potentilla tabernaemontani	16.0
Agrostis capillaris	16.0	Hypochaeris radicata	15.0
Veronica arvensis	14.0	Cladonia furcata	14.0
Sedum sexangulare	13.0	Hypericum perforatum	13.0
Cetraria aculeata	13.0	Cerastium semidecandrum	13.0
Veronica verna	12.0	Myosotis stricta	12.0
Erodium cicutarium	12.0	Cerastium pumilum	12.0
Achillea millefolium aggr.	12.0	Sanguisorba minor	11.0
Cladonia rangiformis	11.0		
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Polytrichum piliferum	20.0	Sedum album	9.0
Racomitrium canescens	9.0	Syntrichia ruralis	6.0

R13 - [E11d] Cryptogam- and annual-dominated vegetation on calcareous and ultramafic rock outcrops

<i>Diagnostic species (phi coefficient * 100)</i>			
Saxifraga tridactylites	41.2	Sedum album	38.5
Draba verna aggr.	35.4	Arenaria serpyllifolia	31.1
Sedum acre	30.7	Hornungia petraea	29.9
Clinopodium acinos	28.0	Cerastium pumilum	24.5

Alyssum alyssoides	23.5	Medicago minima	21.7
Minuartia hybrida aggr.	21.0	Cerastium semidecandrum	20.0
Tortella inclinata	19.9	Abietinella abietina	19.2
Sedum sexangulare	18.8	Encalypta streptocarpa	18.4
Holosteum umbellatum	17.9	Poa compressa	17.4
Homalothecium sericeum	17.0	Syntrichia ruralis	16.8
Ditrichum flexicaule	16.7	Teucrium botrys	16.5
Potentilla tabernaemontani	16.5	Cladonia symphyocarpa	16.5
Peltigera rufescens	15.9	Encalypta vulgaris	15.3
Barbula convoluta	15.3	Poa bulbosa	15.2

Constant species (occurrence frequencies)

Arenaria serpyllifolia	47.0	Sedum album	42.0
Draba verna aggr.	39.0	Sedum acre	38.0
Clinopodium acinos	30.0	Saxifraga tridactylites	28.0
Potentilla tabernaemontani	21.0	Medicago minima	21.0
Poa bulbosa	20.0	Cerastium semidecandrum	20.0
Cerastium pumilum	20.0	Sanguisorba minor	19.0
Poa compressa	19.0	Alyssum alyssoides	19.0
Veronica arvensis	17.0	Euphorbia cyparissias	17.0
Abietinella abietina	17.0	Sedum sexangulare	16.0
Hornungia petraea	16.0	Artemisia campestris	16.0
Tortella tortuosa	15.0	Festuca ovina	15.0
Syntrichia ruralis	14.0	Plantago lanceolata	13.0
Hypnum cupressiforme	13.0	Erodium cicutarium	13.0
Echium vulgare	13.0	Teucrium chamaedrys	11.0
Minuartia hybrida aggr.	11.0	Medicago lupulina	11.0
Holosteum umbellatum	11.0	Ceratodon purpureus	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Sedum album	12.0
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R14 - [E11e] Perennial rocky grassland of the Italian Peninsula

*Diagnostic species (phi coefficient * 100)*

Festuca circummediterranea	62.2	Koeleria lobata	61.9
Thymus longicaulis	59.6	Phleum ambiguum	57.9
Armeria canescens	51.1	Eryngium amethystinum	47.2
Erysimum pseudorhaeticum	43.6	Crepis lacera	40.6
Festuca inops	39.2	Galium lucidum	38.4
Brachypodium genuense	38.0	Helictochloa versicolor	37.7
Bromopsis erecta	36.8	Petrorhagia saxifraga	36.4
Festuca robustifolia	35.9	Muscari neglectum	35.7
Potentilla rigoana	35.4	Centaurea ambigua	35.2
Valeriana tuberosa	35.1	Dianthus sylvestris	35.1
Knautia purpurea	35.0	Asperula purpurea	34.6
Sedum rupestre	31.1	Helichrysum italicum	31.1

Cytisus spinescens	31.1	Globularia meridionalis	30.6
Artemisia alba	29.3	Cyanus triumfettii	29.1
Anthyllis vulneraria	28.4	Galium corrudifolium	28.3
Allium sphaerocephalon	27.3	Clinopodium alpinum	27.0
Cerastium arvense	26.2	Anthemis cretica	26.1
Inula montana	26.0	Astracantha parnassi subsp. calabricus	25.4
Centaurea alba aggr.	25.0	Minuartia verna	24.7
Bupleurum baldense	24.4	Festuca stricta subsp. stricta	24.1
Trinia dalechampii	23.8	Plantago holosteum	23.8
Cerastium tomentosum	23.8	Carex macrolepis	23.8
Armeria brutia	23.7	Sedum amplexicaule	23.6
Bunium alpinum	23.1	Asperula aristata	22.7
Hypericum barbatum	21.7	Centaurea rupestris aggr.	21.4
Bunium bulbocastanum	21.4	Scorzoneroides cichoriacea	21.1
Sideritis syriaca	20.7	Ranunculus pollinensis	20.5
Trinia glauca	20.1	Satureja montana	20.1
Potentilla hirta	20.1	Polygala flavescens	19.9
Centaurea sarfattiana	19.8	Silene otites aggr.	19.6
Cerastium ligusticum	19.5	Viola eugeniae	19.4
Carlina nebrodensis	19.4	Silene italica	19.3
Festuca laevigata	19.3	Plantago maritima subsp. serpentina	19.2
Thesium humifusum	19.1	Micromeria graeca	18.8
Silene ciliata	18.6	Thymus striatus	18.4
Crupina vulgaris	18.4	Aethionema saxatile	18.2
Helianthemum canum	18.1	Sedum sexangulare	18.0
Sesleria nitida	17.9	Sanguisorba minor	17.5
Allium tenuiflorum	17.5	Viola pseudogracilis	17.2
Stipa dasyvaginata	17.1	Rumex nebroides	17.1
Ornithogalum comosum	17.1	Leontodon crispus	17.0
Helianthemum nummularium	17.0	Noccaea praecox	16.9
Hippocrepis comosa	16.9	Seseli montanum	16.8
Pimpinella tragium	16.6	Helianthemum apenninum	16.6
Globularia bisnagarica	16.6	Senecio doronicum	16.5
Odontarrhena bertolonii	16.5	Centaurea apolepa	16.3
Arabis collina	16.3	Veronica orsiniana	16.2
Genista januensis	16.2	Pilosella officinarum	16.0
Cephalaria leucantha	15.9	Sesleria juncifolia	15.8
Minuartia laricifolia subsp. ophiolitica	15.8	Armeria denticulata	15.8
Tolpis virgata	15.7	Reichardia picroides	15.5
Linum bienne	15.5	Teucrium chamaedrys	15.3
Lomelosia crenata	15.3	Erysimum majellense	15.3
Koeleria splendens	15.2	Centaurea delucae	15.2
Splendens subsp. brutia	15.1		
<i>Constant species (occurrence frequencies)</i>			
Bromopsis erecta	68.0	Thymus longicaulis	54.0
Festuca circummediterranea	49.0	Anthyllis vulneraria	49.0
Koeleria lobata	47.0	Phleum ambiguum	40.0

Sanguisorba minor	39.0	Pilosella officinarum	38.0
Galium lucidum	38.0	Eryngium amethystinum	33.0
Teucrium chamaedrys	32.0	Cerastium arvense	32.0
Armeria canescens	32.0	Helianthemum nummularium	30.0
Sedum rupestre	29.0	Petrorhagia saxifraga	29.0
Helictochloa versicolor	29.0	Lotus corniculatus	28.0
Dianthus sylvestris	27.0	Muscari neglectum	25.0
Helichrysum italicum	25.0	Clinopodium alpinum	25.0
Plantago lanceolata	24.0	Hippocrepis comosa	23.0
Asperula purpurea	23.0	Erysimum pseudorhaeticum	22.0
Allium sphaerocephalon	21.0	Galium corrudifolium	20.0
Knautia purpurea	19.0	Festuca inops	19.0
Brachypodium genuense	19.0	Poa bulbosa	18.0
Minuartia verna	18.0	Crepis lacera	18.0
Asperula cynanchica	18.0	Anthoxanthum odoratum aggr.	18.0
Valeriana tuberosa	17.0	Poa alpina	17.0
Cyanus triumfettii	17.0	Sedum sexangulare	16.0
Dactylis glomerata	16.0	Artemisia alba	16.0
Silene otites aggr.	15.0	Satureja montana	15.0
Potentilla rigoana	15.0	Festuca robustifolia	15.0
Teucrium montanum	14.0	Silene italica	14.0
Seseli montanum	14.0	Inula montana	14.0
Hypericum perforatum	14.0	Helianthemum canum	14.0
Globularia bisnagarica	14.0	Centaurea ambigua	14.0
Carex caryophylla	14.0	Brachypodium rupestre	14.0
Asperula aristata	14.0	Trifolium campestre	13.0
Stachys recta	13.0	Cytisus spinescens	13.0
Bupleurum baldense	13.0	Trinia glauca	12.0
Plantago maritima subsp. serpentina	12.0	Plantago holosteum	12.0
Leontodon crispus	12.0	Globularia meridionalis	12.0
Anthemis cretica	12.0	Achillea millefolium aggr.	12.0
Reichardia picroides	11.0	Leontodon hispidus	11.0
Helianthemum apenninum	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Bromopsis erecta	20.0	Brachypodium genuense	9.0
Festuca circummediterranea	8.0		

R15 - [E11f] Continental dry rocky steppic grassland and dwarf scrub on chalk outcrops

*Diagnostic species (phi coefficient * 100)*

Pimpinella tragium	89.7	Thymus calcareus	84.0
Asperula tephrocarpa	79.1	Cephalaria uralensis	70.8
Hyssopus officinalis	64.9	Euphorbia petrophila	64.2
Gypsophila oligosperma	62.5	Matthiola fragrans	58.2
Astragalus albicaulis	58.2	Artemisia salsoloides	58.2
Jurinea stoechadifolia	57.7	Artemisia hololeuca	55.9

<i>Linum ucranicum</i>	53.4	<i>Bromopsis riparia</i>	51.0
<i>Gypsophila altissima</i>	50.3	<i>Thesium ramosum</i>	50.0
<i>Linum pallasianum</i>	48.2	<i>Salvia nutans</i>	47.4
<i>Erysimum diffusum</i>	46.7	<i>Scrophularia cretacea</i>	45.7
<i>Onosma simplicissima</i>	45.7	<i>Brassica elongata</i> subsp. <i>pinnatifida</i>	45.6
<i>Teucrium polium</i> aggr.	45.4	<i>Odontites luteus</i>	44.9
<i>Euphorbia seguieriana</i>	43.2	<i>Stipa lessingiana</i>	42.6
<i>Koeleria talievii</i>	42.6	<i>Potentilla humifusa</i>	41.0
<i>Polygala cretacea</i>	39.4	<i>Psephellus carbonatus</i>	39.1
<i>Convolvulus lineatus</i>	37.6	<i>Astragalus subuliformis</i>	37.4
<i>Linum tenuifolium</i>	36.8	<i>Artemisia nutans</i>	36.1
<i>Hyacinthella pallasiana</i>	35.9	<i>Genista scythica</i>	35.8
<i>Stipa capillata</i>	35.4	<i>Reseda lutea</i>	33.8
<i>Linum austriacum</i>	33.4	<i>Agropyron cristatum</i>	32.6
<i>Linaria cretacea</i>	32.2	<i>Festuca cretacea</i>	32.1
<i>Potentilla astracanic</i>	31.9	<i>Jurinea arachnoidea</i>	31.8
<i>Hedysarum grandiflorum</i>	31.4	<i>Dianthus pseudarmeria</i>	31.2
<i>Helichrysum arenarium</i>	30.8	<i>Psephellus marschallianus</i>	30.0
<i>Helianthemum cretophilum</i>	28.0	<i>Silene cretacea</i>	27.9
<i>Elytrigia stipifolia</i>	27.9	<i>Allium ascalonicum</i>	27.8
<i>Scabiosa ochroleuca</i>	27.7	<i>Vincetoxicum fuscatum</i>	27.0
<i>Odontarrhena tortuosa</i>	26.2	<i>Cleistogenes serotina</i>	26.2
<i>Thalictrum minus</i>	25.6	<i>Silene supina</i>	25.6
<i>Meniocus linifolius</i>	24.9	<i>Iris pumila</i>	24.4
<i>Galatella villosa</i>	23.5	<i>Tanacetum millefolium</i>	23.3
<i>Euphorbia nicaeensis</i>	23.0	<i>Cytisus ruthenicus</i>	23.0
<i>Onosma polyphylla</i>	22.7	<i>Centaurea lavrenkoana</i>	22.7
<i>Asperula cretacea</i>	22.5	<i>Linum hirsutum</i>	21.6
<i>Hypericum elegans</i>	21.6	<i>Marrubium peregrinum</i>	21.5
<i>Centaurea orientalis</i>	21.5	<i>Gypsophila glomerata</i>	21.1
<i>Poa sterilis</i>	21.0	<i>Campanula sibirica</i>	20.7
<i>Veronica multifida</i>	20.5	<i>Potentilla recta</i>	20.0
<i>Euphrasia hirtella</i>	20.0	<i>Centaurea pseudomaculosa</i>	19.9
<i>Taraxacum serotinum</i>	19.8	<i>Phlomis herba-venti</i>	19.2
<i>Plantago maritima</i>	18.7	<i>Festuca valesiaca</i>	18.7
<i>Arenaria procera</i>	18.7	<i>Silene densiflora</i>	18.5
<i>Verbascum marschallianum</i>	18.2	<i>Astragalus onobrychis</i>	18.2
<i>Stipa zalesskii</i>	18.0	<i>Securigera varia</i>	18.0
<i>Allium flavum</i>	17.9	<i>Artemisia austriaca</i>	17.8
<i>Artemisia lerchiana</i>	17.3	<i>Scutellaria alpina</i>	17.0
<i>Holosteum umbellatum</i>	16.8	<i>Achillea stepposa</i>	16.3
<i>Limonium alutaceum</i>	16.1	<i>Lepidium meyeri</i>	16.1
<i>Helianthemum creticola</i>	16.1	<i>Diplotaxis cretacea</i>	16.1
<i>Helianthemum rupifragum</i>	16.0	<i>Hedysarum cretaceum</i>	16.0
<i>Centaurea besseriana</i>	16.0	<i>Polycnemum arvense</i>	15.6
<i>Atraphaxis frutescens</i>	15.6	<i>Alyssum calycocarpum</i>	15.6
<i>Genista tinctoria</i>	15.4	<i>Arenaria leptoclados</i>	15.4
<i>Viola ambigua</i>	15.3	<i>Astragalus sulcatus</i>	15.3

Gagea bulbifera	15.2	Silene syreistschikowii	15.1
Gagea pusilla	15.1	Bupleurum falcatum	15.0
<i>Constant species (occurrence frequencies)</i>			
Pimpinella tragium	89.0	Thymus calcareus	71.0
Asperula tephrocarpa	63.0	Teucrium polium aggr.	55.0
Cephalaria uralensis	55.0	Hyssopus officinalis	45.0
Euphorbia petrophila	42.0	Gypsophila oligosperma	39.0
Odontites luteus	37.0	Euphorbia seguieriana	37.0
Matthiola fragrans	34.0	Jurinea stoechadifolia	34.0
Erysimum diffusum	34.0	Bromopsis riparia	34.0
Astragalus albicaulis	34.0	Artemisia salsoloides	34.0
Thesium ramosum	32.0	Stipa capillata	32.0
Artemisia hololeuca	32.0	Salvia nutans	29.0
Linum ucranicum	29.0	Linum tenuifolium	29.0
Gypsophila altissima	29.0	Scabiosa ochroleuca	26.0
Reseda lutea	26.0	Festuca valesiaca	26.0
Thalictrum minus	24.0	Stipa lessingiana	24.0
Securigera varia	24.0	Onosma simplicissima	24.0
Linum pallasianum	24.0	Helichrysum arenarium	24.0
Scrophularia cretacea	21.0	Potentilla humifusa	21.0
Brassica elongata subsp. pinnatifida	21.0	Poa bulbosa	18.0
Plantago maritima	18.0	Medicago falcata	18.0
Linum austriacum	18.0	Koeleria talievii	18.0
Genista tinctoria	18.0	Convolvulus lineatus	18.0
Agropyron cristatum	18.0	Psephellus carbonatus	16.0
Polygala cretacea	16.0	Koeleria pyramidata	16.0
Euphorbia nicaeensis	16.0	Astragalus subuliformis	16.0
Veronica spicata	13.0	Potentilla recta	13.0
Potentilla astracanica	13.0	Jurinea arachnoidea	13.0
Hyacinthella pallasiana	13.0	Genista scythica	13.0
Cleistogenes serotina	13.0	Campanula sibirica	13.0
Bupleurum falcatum	13.0	Astragalus onobrychis	13.0
Artemisia nutans	13.0	Vincetoxicum hirundinaria	11.0
Stachys recta	11.0	Psephellus marschallianus	11.0
Odontarrhena tortuosa	11.0	Marrubium peregrinum	11.0
Linaria cretacea	11.0	Iris pumila	11.0
Holosteum umbellatum	11.0	Hedysarum grandiflorum	11.0
Galatella villosa	11.0	Festuca cretacea	11.0
Dianthus pseudarmeria	11.0	Cytisus ruthenicus	11.0
Asperula cynanchica	11.0	Artemisia campestris	11.0
Artemisia austriaca	11.0	Arenaria leptoclados	11.0
Allium flavum	11.0		
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Thymus calcareus	21.0		

R16 - [E11g] Perennial rocky grassland of Central and South-Eastern Europe

*Diagnostic species (phi coefficient * 100)*

Potentilla cinerea	36.8	Festuca pallens	34.9
Teucrium montanum	30.0	Seseli osseum	29.9
Carex humilis	29.5	Stachys recta	29.1
Melica ciliata	26.9	Euphorbia cyparissias	26.9
Allium lusitanicum	26.1	Jovibarba globifera	25.8
Anthericum ramosum	25.1	Asperula cynanchica	24.5
Sedum album	23.7	Allium flavum	22.2
Teucrium chamaedrys	21.7	Vincetoxicum hirundinaria	20.6
Inula ensifolia	20.6	Thymus comosus	20.0
Clinopodium acinos	19.4	Helianthemum nummularium	19.2
Campanula sibirica	18.8	Galium glaucum	18.7
Scabiosa ochroleuca	18.1	Alyssum montanum	18.0
Leontodon incanus	17.5	Thymus praecox	15.9
Poa badensis	15.5	Minuartia setacea	15.4
Erysimum odoratum	15.2		

Constant species (occurrence frequencies)

Euphorbia cyparissias	58.0	Teucrium chamaedrys	44.0
Potentilla cinerea	40.0	Carex humilis	39.0
Asperula cynanchica	35.0	Stachys recta	34.0
Helianthemum nummularium	33.0	Festuca pallens	33.0
Teucrium montanum	32.0	Vincetoxicum hirundinaria	30.0
Sanguisorba minor	27.0	Sedum album	25.0
Anthericum ramosum	25.0	Melica ciliata	24.0
Thymus praecox	22.0	Anthyllis vulneraria	22.0
Clinopodium acinos	20.0	Artemisia campestris	18.0
Sesleria caerulea	17.0	Seseli osseum	16.0
Scabiosa ochroleuca	16.0	Hypericum perforatum	16.0
Allium lusitanicum	16.0	Pilosella officinarum	15.0
Koeleria macrantha	15.0	Sedum acre	14.0
Jovibarba globifera	13.0	Echium vulgare	13.0
Centaurea stoebe	13.0	Bothriochloa ischaemum	13.0
Arenaria serpyllifolia	13.0	Salvia pratensis	12.0
Hippocrepis comosa	12.0	Galium mollugo aggr.	12.0
Dianthus carthusianorum	12.0	Asplenium ruta-muraria	12.0
Allium flavum	12.0	Medicago falcata	11.0
Galium glaucum	11.0	Campanula sibirica	11.0
Campanula rotundifolia	11.0	Achillea millefolium aggr.	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Carex humilis	13.0	Festuca pallens	7.0
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R17 - [E11h] Heavy-metal dry grassland of the Balkans

*Diagnostic species (phi coefficient * 100)*

Odontarrhena markgrafii	71.5	Plantago holosteum	65.9
Euphorbia glabriflora	65.7	Bromopsis riparia	61.9
Stachys scardica	58.3	Minuartia verna	55.0
Stachys recta subsp. baldaccii	54.1	Halacsya sendtneri	45.7
Leontodon crispus	43.6	Linum tauricum	41.6
Pontechium maculatum	40.7	Scleranthus perennis	39.5
Artemisia alba	37.9	Poa molinerii	37.8
Sedum hispanicum	36.9	Plantago subulata	36.9
Dorycnium pentaphyllum	36.5	Astragalus onobrychis	36.4
Hypericum barbatum	36.0	Erysimum diffusum	35.7
Odontarrhena muralis	35.5	Aethionema saxatile	35.2
Silene bupleuroides	34.5	Koeleria splendens	34.3
Thymus longicaulis	34.0	Thesium ramosum	33.7
Medicago prostrata	33.7	Poa badensis	33.5
Centaurea alba aggr.	32.8	Ornithogalum collinum	32.3
Fumana bonapartei	32.2	Alyssum montanum	31.6
Iris reichenbachii	30.6	Armeria rumelica	30.3
Festuca panciciana	29.9	Trinia glauca	29.8
Sesleria latifolia	29.7	Potentilla heptaphylla	29.1
Centaurea kosaninii	28.9	Scabiosa fumarioides	28.8
Potentilla visianii	28.8	Euphorbia barrelieri	28.8
Dianthus pinifolius	28.5	Sedum urvillei	28.4
Teucrium montanum	28.2	Linum perenne	28.2
Potentilla astracanica	28.0	Goniolimon collinum	27.7
Asyneuma limonifolium	27.3	Asperula purpurea	26.8
Allium flavum	26.8	Phleum montanum	25.8
Danthonia alpina	25.5	Galium lucidum	25.4
Sedum album	25.3	Stipa novakii	25.0
Cytisus decumbens	24.9	Stipa pulcherrima	24.6
Scorzonera austriaca	24.0	Sedum ochroleucum	23.9
Onobrychis alba	23.7	Potentilla pedata	23.2
Convolvulus cantabrica	23.1	Cerastium decalvans	23.0
Galatella linosyris	22.9	Paragymnopteris marantae	22.5
Centaurea stoebe	22.5	Silene paradoxa	22.4
Achillea coarctata	22.4	Minuartia hamata	22.0
Jovibarba heuffelii	21.8	Hypericum rumeliacum	21.7
Silene armeria	21.6	Rorippa pyrenaica	21.6
Carex kitaibeliana	21.6	Thymus roegneri	21.4
Jurinea mollis	21.3	Sanguisorba minor	21.1
Onosma echioides	20.9	Saponaria intermedia	20.5
Paronychia kapela	20.4	Anthemis cretica	20.4
Stipa mayeri	20.3	Silene bupleuroides subsp. staticifolia	19.9
Dianthus carthusianorum	19.8	Orobanche gracilis	19.6
Thymus praecox	19.5	Noccaea praecox	19.4
Pilosella cymosa	19.2	Cyanus napulifer	19.1
Polygala major	18.9	Festuca koritnicensis	18.9
Euphrasia pectinata	18.9	Plantago argentea	18.5

Convolvulus boissieri	18.5	Pilosella bauhini	18.3
Tragopogon pterodes	18.2	Trifolium trichopterum	18.1
Satureja pilosa	17.9	Genista sagittalis	17.4
Inula aschersoniana	17.3	Melica ciliata	16.7
Clinopodium graveolens	16.6	Sempervivum marmoreum	16.3
Koeleria nitidula	16.3	Traunsteinera globosa	16.2
Scabiosa columbaria	16.0	Carex humilis	15.7
Dianthus sylvestris	15.6	Rumex acetosella	15.3
Ionopsidium abulense	15.3		

Constant species (occurrence frequencies)

Plantago holostium	53.0	Odontarrhena markgrafii	53.0
Minuartia verna	51.0	Dorycnium pentaphyllum	49.0
Sanguisorba minor	47.0	Bromopsis riparia	47.0
Euphorbia glabriflora	45.0	Stachys scardica	38.0
Scleranthus perennis	38.0	Leontodon crispus	38.0
Rumex acetosella	34.0	Teucrium montanum	32.0
Stachys recta subsp. baldaccii	30.0	Astragalus onobrychis	30.0
Thymus praecox	28.0	Sedum album	28.0
Thymus longicaulis	26.0	Plantago subulata	23.0
Galium lucidum	23.0	Erysimum diffusum	23.0
Artemisia alba	23.0	Sedum hispanicum	21.0
Scabiosa columbaria	21.0	Potentilla heptaphylla	21.0
Halacsya sendtneri	21.0	Dianthus carthusianorum	21.0
Centaurea stoebe	21.0	Carex humilis	21.0
Carex caryophyllea	21.0	Anthyllis vulneraria	21.0
Trinia glauca	19.0	Pontechium maculatum	19.0
Lotus corniculatus	19.0	Linum tauricum	19.0
Koeleria splendens	19.0	Hypericum perforatum	19.0
Alyssum montanum	19.0	Aethionema saxatile	19.0
Thesium ramosum	17.0	Poa molinerii	17.0
Poa bulbosa	17.0	Poa badensis	17.0
Odontarrhena muralis	17.0	Hypericum barbatum	17.0
Hippocrepis comosa	17.0	Convolvulus cantabrica	17.0
Asperula purpurea	17.0	Allium flavum	17.0
Silene bupleuroides	15.0	Pilosella bauhini	15.0
Ornithogalum collinum	15.0	Melica ciliata	15.0
Medicago prostrata	15.0	Genista tinctoria	15.0
Genista sagittalis	15.0	Euphorbia cyparissias	15.0
Danthonia alpina	15.0	Centaurea alba aggr.	15.0
Veronica austriaca	13.0	Trifolium alpestre	13.0
Stipa pulcherrima	13.0	Stachys recta	13.0
Silene vulgaris	13.0	Sedum urvillei	13.0
Sedum ochroleucum	13.0	Potentilla argentea	13.0
Galatella linosyris	13.0	Festuca ovina	13.0
Bothriochloa ischaemum	13.0	Asperula cynanchica	13.0
Armeria rumelica	13.0	Vincetoxicum hirundinaria	11.0
Thymus roegneri	11.0	Sesleria latifolia	11.0

Scorzonera austriaca	11.0	Potentilla pedata	11.0
Potentilla cinerea	11.0	Potentilla astracantha	11.0
Phleum montanum	11.0	Linum perenne	11.0
Iris reichenbachii	11.0	Chrysopogon gryllus	11.0
Hypericum rumeliacum	11.0	Galium verum	11.0
Fumana bonapartei	11.0	Filipendula vulgaris	11.0
Festuca valesiaca	11.0	Festuca panciciana	11.0
Euphorbia barrelieri	11.0	Eryngium campestre	11.0
Dianthus sylvestris	11.0	Dianthus pinifolius	11.0
Cerastium arvense	11.0	Brachypodium pinnatum	11.0
Asyneuma limonifolium	11.0	Anthoxanthum odoratum aggr.	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Plantago holosteum	11.0	Euphorbia glabriflora	9.0
Poa alpina	6.0		

R18 - [E11i] Perennial rocky calcareous grassland of subatlantic-submediterranean Europe

*Diagnostic species (phi coefficient * 100)*

Koeleria vallesiana	54.1	Coronilla minima	40.6
Fumana procumbens	37.1	Helianthemum apenninum	35.8
Seseli montanum	34.3	Globularia bisnagarica	33.5
Potentilla tabernaemontani	32.0	Linum suffruticosum aggr.	30.3
Helianthemum canum	29.9	Inula montana	29.7
Teucrium montanum	29.2	Anthyllis montana	27.7
Carex humilis	27.0	Ononis striata	26.8
Thymus vulgaris	26.4	Helianthemum italicum	25.7
Trinia glauca	24.6	Bromopsis erecta	24.2
Aphyllanthes monspeliensis	24.2	Teucrium chamaedrys	23.7
Hippocrepis comosa	23.3	Asperula cynanchica	23.3
Ononis pusilla	23.1	Argyrolobium zanonii	23.0
Thesium divaricatum	22.7	Carex halleriana	22.4
Sesleria coerulans	22.2	Globularia repens	21.9
Helictochloa bromoides	21.1	Lavandula angustifolia	20.6
Lavandula latifolia	20.3	Galium corrudifolium	19.9
Helichrysum stoechas	18.9	Carthamus mitissimus	18.5
Thymus serpyllum	18.4	Fumana ericifolia	18.2
Allium sphaerocephalon	18.2	Astragalus monspessulanus	17.9
Carthamus carduncellus	17.8	Genista scorpius	17.5
Sedum sediforme	17.4	Anthyllis vulneraria	17.3
Coris monspeliensis	17.1	Crepis albida	16.6
Linum tenuifolium	16.5	Dianthus sylvestris	16.4
Eryngium campestre	16.1	Onobrychis supina	15.8
Festuca glauca	15.8	Arenaria aggregata	15.4
Rhaponticum coniferum	15.3	Teucrium polium aggr.	15.1

Constant species (occurrence frequencies)

Koeleria vallesiana	57.0	Teucrium chamaedrys	48.0
Bromopsis erecta	43.0	Potentilla tabernaemontani	41.0
Coronilla minima	37.0	Carex humilis	36.0
Asperula cynanchica	34.0	Thymus vulgaris	31.0
Teucrium montanum	31.0	Hippocrepis comosa	31.0
Fumana procumbens	31.0	Pilosella officinarum	29.0
Globularia bisnagarica	29.0	Eryngium campestre	29.0
Anthyllis vulneraria	29.0	Seseli montanum	28.0
Sanguisorba minor	25.0	Helianthemum apenninum	25.0
Helianthemum canum	24.0	Carex halleriana	24.0
Thymus serpyllum	23.0	Festuca ovina	22.0
Aphyllanthes monspeliensis	22.0	Linum suffruticosum aggr.	21.0
Scabiosa columbaria	19.0	Helianthemum nummularium	19.0
Sesleria coerulans	18.0	Teucrium polium aggr.	16.0
Helictochloa pratensis	16.0	Lavandula angustifolia	15.0
Inula montana	15.0	Helichrysum stoechas	15.0
Helianthemum italicum	15.0	Genista scorpius	15.0
Dorycnium pentaphyllum	15.0	Argyrolobium zanonii	15.0
Anthyllis montana	15.0	Trinia glauca	14.0
Thymus praecox	14.0	Stachys recta	14.0
Sedum sediforme	14.0	Lavandula latifolia	14.0
Helictochloa bromoides	14.0	Ononis pusilla	13.0
Lotus corniculatus	13.0	Galium corrudifolium	13.0
Euphorbia cyparissias	13.0	Campanula rotundifolia	12.0
Astragalus monspessulanus	12.0	Allium sphaerocephalon	12.0
Thesium divaricatum	11.0	Sedum album	11.0
Ononis striata	11.0	Linum tenuifolium	11.0
Genista pilosa	11.0	Festuca pallens	11.0
Dianthus sylvestris	11.0	Brachypodium pinnatum	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Bromopsis erecta	9.0	Sesleria coerulans	6.0
Carex humilis	6.0		

R19 - [E11j] Dry steppic submediterranean pasture of the Amphi-Adriatic region

*Diagnostic species (phi coefficient * 100)*

Satureja montana	46.2	Koeleria splendens	40.8
Plantago holostium	40.5	Dianthus sylvestris	39.4
Eryngium amethystinum	38.7	Fumana procumbens	36.3
Teucrium montanum	36.1	Galium corrudifolium	33.1
Bromopsis erecta	32.3	Centaurea rupestris aggr.	31.6
Helichrysum italicum	28.9	Sesleria juncifolia	27.6
Medicago prostrata	27.3	Koeleria lobata	26.4
Thymus longicaulis	25.7	Euphorbia spinosa	24.7
Galium lucidum	24.3	Convolvulus cantabrica	23.8
Anthyllis vulneraria	23.6	Sanguisorba minor	23.2

Globularia cordifolia	22.7	Bupleurum baldense	22.7
Leontodon crispus	22.4	Genista sylvestris	22.4
Scorzonera villosa	22.2	Cytisus spinescens	21.6
Polygala nicaeensis aggr.	20.8	Carex humilis	20.8
Scorzonera austriaca	20.7	Festuca valesiaca	20.7
Asperula aristata	20.7	Teucrium polium aggr.	20.5
Genista sericea	20.3	Poa molinerii	20.2
Minuartia verna	20.0	Thesium humifusum	19.6
Potentilla pusilla	19.6	Petrorhagia saxifraga	19.5
Linum tenuifolium	19.3	Marrubium incanum	19.1
Helianthemum canum	18.9	Festuca circummediterranea	18.9
Euphorbia myrsinites	18.4	Asperula purpurea	18.4
Aethionema saxatile	18.4	Sedum rupestre	18.2
Stipa austroitalica	18.1	Phleum ambiguum	18.1
Leontodon apulus	17.8	Globularia bisnagarica	17.7
Artemisia alba	17.7	Thymus striatus	17.6
Inula verbascifolia	17.4	Festuca illyrica	17.4
Onosma echioides	17.2	Thesium divaricatum	17.1
Centaurea alba aggr.	17.1	Stipa eriocaulis	17.0
Sempervivum tectorum	16.8	Salvia officinalis	16.6
Centaurea spinosociliata	16.6	Sideritis syriaca	16.0
Reichardia picroides	16.0	Sedum sexangulare	15.9
Festuca stricta subsp. stricta	15.9	Edraianthus tenuifolius	15.9
Allium sphaerocephalon	15.6	Cephalaria leucantha	15.2
Pulsatilla montana	15.1	Festuca inops	15.1
Carlina corymbosa	15.1		
<i>Constant species (occurrence frequencies)</i>			
Bromopsis erecta	59.0	Sanguisorba minor	51.0
Teucrium montanum	41.0	Satureja montana	40.0
Anthyllis vulneraria	40.0	Fumana procumbens	33.0
Dianthus sylvestris	31.0	Festuca valesiaca	29.0
Carex humilis	28.0	Teucrium chamaedrys	27.0
Plantago holosteam	24.0	Koeleria splendens	24.0
Galium corrudifolium	24.0	Eryngium amethystinum	24.0
Teucrium polium aggr.	22.0	Helichrysum italicum	22.0
Helianthemum nummularium	22.0	Galium lucidum	22.0
Thymus longicaulis	18.0	Lotus corniculatus	18.0
Leontodon crispus	17.0	Convolvulus cantabrica	17.0
Sedum rupestre	16.0	Globularia cordifolia	16.0
Stachys recta	15.0	Pilosella officinarum	15.0
Helianthemum canum	15.0	Globularia bisnagarica	15.0
Sedum sexangulare	14.0	Petrorhagia saxifraga	14.0
Minuartia verna	14.0	Euphorbia cyparissias	14.0
Dorycnium pentaphyllum	14.0	Linum tenuifolium	13.0
Koeleria lobata	13.0	Hypericum perforatum	13.0
Hippocrepis comosa	13.0	Carex caryophyllea	13.0
Asperula cynanchica	13.0	Plantago lanceolata	12.0

Chrysopogon gryllus	12.0	Euphorbia spinosa	12.0
Eryngium campestre	12.0	Centaurea rupestris aggr.	12.0
Bupleurum baldense	12.0	Asperula aristata	12.0
Sesleria juncifolia	11.0	Reichardia picroides	11.0
Dactylis glomerata	11.0	Carlina corymbosa	11.0
Asperula purpurea	11.0	Allium sphaerocephalon	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Bromopsis erecta	16.0	Satureja montana	12.0
Carex humilis	9.0	Sesleria juncifolia	7.0
Festuca valesiaca	7.0		

R1A - [E12a] Semi-dry perennial calcareous grassland (meadow steppe)

*Diagnostic species (phi coefficient * 100)*

Sanguisorba minor	25.3	Koeleria pyramidata	22.4
Cirsium acaulon	22.0	Plantago media	21.6
Bromopsis erecta	21.5	Linum catharticum	20.8
Trifolium montanum	20.5	Pimpinella saxifraga	20.2
Centaurea scabiosa	20.2	Scabiosa columbaria	20.1
Carex caryophyllea	20.1	Brachypodium pinnatum	20.1
Galium verum	19.5	Salvia pratensis	19.1
Asperula cynanchica	19.1	Helianthemum nummularium	18.7
Thymus pulegioides	18.1	Euphorbia cyparissias	18.1
Hippocrepis comosa	18.0	Festuca stricta subsp. sulcata	17.9
Briza media	17.9	Lotus corniculatus	17.4
Ononis spinosa	16.6	Carlina vulgaris	16.6
Helictochloa pratensis	16.1	Anthyllis vulneraria	15.2

Constant species (occurrence frequencies)

Lotus corniculatus	49.0	Sanguisorba minor	47.0
Achillea millefolium aggr.	42.0	Galium verum	41.0
Plantago lanceolata	40.0	Briza media	40.0
Brachypodium pinnatum	38.0	Euphorbia cyparissias	36.0
Plantago media	34.0	Pimpinella saxifraga	34.0
Bromopsis erecta	33.0	Pilosella officinarum	32.0
Poa pratensis aggr.	31.0	Dactylis glomerata	31.0
Linum catharticum	30.0	Helianthemum nummularium	28.0
Carex flacca	28.0	Leontodon hispidus	26.0
Carex caryophyllea	26.0	Thymus pulegioides	25.0
Hypericum perforatum	25.0	Festuca ovina	25.0
Teucrium chamaedrys	23.0	Asperula cynanchica	23.0
Anthyllis vulneraria	23.0	Leucanthemum vulgare aggr.	22.0
Centaurea scabiosa	22.0	Trifolium pratense	21.0
Trifolium montanum	21.0	Scabiosa columbaria	21.0
Knautia arvensis	21.0	Eryngium campestre	21.0
Salvia pratensis	20.0	Hippocrepis comosa	20.0

Ranunculus bulbosus	19.0	Ononis spinosa	19.0
Medicago lupulina	19.0	Koeleria pyramidata	19.0
Galium mollugo aggr.	19.0	Centaurea jacea	19.0
Festuca rubra	18.0	Cirsium acaulon	18.0
Anthoxanthum odoratum aggr.	18.0	Daucus carota	17.0
Agrostis capillaris	17.0	Medicago falcata	16.0
Filipendula vulgaris	16.0	Festuca stricta subsp. sulcata	16.0
Carlina vulgaris	16.0	Campanula rotundifolia	16.0
Agrimonia eupatoria	16.0	Viola hirta	15.0
Securigera varia	15.0	Potentilla tabernaemontani	15.0
Arrhenatherum elatius	15.0	Primula veris	14.0
Helictochloa pratensis	14.0	Fragaria viridis	14.0
Thymus praecox	13.0	Carlina acaulis	13.0
Origanum vulgare	12.0	Koeleria macrantha	12.0
Dianthus carthusianorum	12.0	Stachys officinalis	11.0
Prunella vulgaris	11.0	Polygala vulgaris	11.0
Luzula campestris	11.0	Galium pumilum	11.0
Festuca valesiaca	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Bromopsis erecta	15.0	Brachypodium pinnatum	13.0
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R1B - [E12b] Continental dry grassland (true steppe)

*Diagnostic species (phi coefficient * 100)*

Festuca valesiaca	52.5	Stipa capillata	48.8
Bothriochloa ischaemum	35.8	Medicago falcata	32.6
Artemisia austriaca	32.6	Salvia nemorosa	31.9
Potentilla cinerea	31.8	Galatella villosa	30.2
Eryngium campestre	29.3	Koeleria macrantha	27.6
Galium octonarium	27.4	Salvia nutans	26.8
Stipa lessingiana	26.5	Stipa pulcherrima	24.7
Falcaria vulgaris	24.7	Agropyron cristatum	24.5
Phlomis herba-venti	23.0	Linum austriacum	22.4
Nonea pulla	22.3	Elytrigia intermedia	22.1
Iris pumila	22.0	Veronica spicata	21.6
Astragalus onobrychis	21.6	Astragalus austriacus	21.5
Taraxacum serotinum	21.3	Campanula sibirica	21.0
Verbascum phoeniceum	20.9	Euphorbia seguieriana	20.5
Achillea stepposa	20.5	Veronica prostrata	20.2
Stipa zaleskii	19.7	Caragana frutex	19.7
Achillea setacea	19.6	Oxytropis pilosa	19.5
Centaurea stoebe	19.3	Carex supina	19.3
Bassia prostrata	19.2	Adonis vernalis	19.2
Asperula cynanchica	18.9	Helictotrichon desertorum	18.8
Silene otites aggr.	18.7	Stipa tirsia	18.3
Stachys recta	18.3	Scabiosa ochroleuca	18.3

Stipa pennata	18.1	Viola ambigua	18.0
Pilosella echiooides	17.9	Thymus odoratissimus	17.8
Potentilla humifusa	17.7	Tanacetum millefolium	17.6
Achillea nobilis	17.4	Xeranthemum annuum	17.2
Schistidium dupretii	17.1	Potentilla argentea	17.1
Galium humifusum	17.1	Euphorbia nicaeensis	16.8
Securigera varia	16.7	Arenaria procera	16.7
Bromopsis riparia	16.6	Marrubium peregrinum	16.3
Jurinea arachnoidea	16.2	Onosma simplicissima	16.0
Erysimum diffusum	16.0	Hypericum elegans	15.7
Phleum phleoides	15.5	Euphorbia cyparissias	15.4
Artemisia campestris	15.4	Teucrium chamaedrys	15.3
Poa bulbosa	15.3	Artemisia pontica	15.3

Constant species (occurrence frequencies)

Festuca valesiaca	72.0	Eryngium campestre	50.0
Medicago falcata	42.0	Stipa capillata	39.0
Bothriochloa ischaemum	38.0	Euphorbia cyparissias	34.0
Potentilla cinerea	33.0	Teucrium chamaedrys	32.0
Galium verum	32.0	Koeleria macrantha	30.0
Poa pratensis aggr.	27.0	Plantago lanceolata	27.0
Asperula cynanchica	27.0	Thymus pulegioides	24.0
Achillea millefolium aggr.	23.0	Stachys recta	21.0
Securigera varia	21.0	Potentilla argentea	21.0
Salvia nemorosa	20.0	Sanguisorba minor	19.0
Poa bulbosa	19.0	Artemisia campestris	19.0
Veronica spicata	18.0	Plantago media	18.0
Hypericum perforatum	18.0	Falcaria vulgaris	18.0
Elytrigia repens	18.0	Artemisia austriaca	18.0
Convolvulus arvensis	17.0	Centaurea stoebe	17.0
Scabiosa ochroleuca	16.0	Teucrium polium aggr.	15.0
Phleum phleoides	15.0	Lotus corniculatus	15.0
Fragaria viridis	15.0	Festuca stricta subsp. sulcata	15.0
Elytrigia intermedia	15.0	Carex humilis	15.0
Salvia pratensis	14.0	Koeleria pyramidata	14.0
Filipendula vulgaris	14.0	Euphorbia seguieriana	14.0
Astragalus onobrychis	14.0	Arenaria serpyllifolia	14.0
Silene otites aggr.	13.0	Pilosella officinarum	12.0
Galatella villosa	12.0	Echium vulgare	12.0
Dorycnium pentaphyllum	12.0	Clinopodium acinos	12.0
Campanula sibirica	12.0	Achillea setacea	12.0
Agrimonia eupatoria	12.0	Trifolium arvense	11.0
Thymus odoratissimus	11.0	Stipa pulcherrima	11.0
Stipa pennata	11.0	Medicago minima	11.0
Medicago lupulina	11.0	Centaurea scabiosa	11.0
Agropyron cristatum	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Festuca valesiaca	36.0	Stipa capillata	13.0
Bothriochloa ischaemum	11.0		

R1C - [E12c] Desert steppe

*Diagnostic species (phi coefficient * 100)*

Artemisia lerchiana	74.2	Leymus ramosus	68.4
Bassia prostrata	67.5	Alyssum turkestanicum	61.8
Tanacetum achilleifolium	54.0	Artemisia austriaca	52.0
Meniocus linifolius	47.1	Eremopyrum orientale	44.1
Poa bulbosa	42.6	Artemisia pauciflora	41.6
Agropyron cristatum	41.5	Ceratocarpus arenarius	39.9
Carduus uncinatus	38.1	Camphorosma monspeliaca	36.4
Agropyron desertorum	35.7	Bassia sedoides	34.8
Agropyron fragile	33.5	Artemisia taurica	33.4
Medicago orthoceras	32.6	Polygonum novoascanicum	31.3
Lepidium perfoliatum	31.2	Bromus squarrosus	31.0
Erodium hoefftianum	30.9	Prangos odontalgica	30.8
Stipa lessingiana	30.4	Ceratocephala falcata	29.9
Ephedra distachya	29.4	Xanthoria parietina	28.9
Alhagi maurorum	28.5	Ornithogalum fischerianum	27.8
Limonium sareptanum	26.8	Phlomis herba-venti	26.3
Sisymbrium loeselii	24.7	Artemisia arenaria	24.2
Artemisia nitrosa	24.0	Lappula patula	23.7
Androsace maxima	23.3	Eremopyrum triticeum	23.1
Limonium gmelinii	23.0	Krascheninnikovia ceratoides	22.9
Achillea leptophylla	22.8	Galatella villosa	22.6
Holosteum umbellatum	21.5	Artemisia scoparia	21.4
Ornithogalum orthophyllum	21.2	Achillea micrantha	21.2
Bellevalia speciosa	21.1	Salsola tragus	20.6
Gonolimon tataricum	20.3	Senecio leucanthemifolius	20.0
Silene cyri	19.9	Iris scariosa	19.6
Anabasis salsa	19.5	Xanthoria polycarpa	19.4
Tulipa biflora	19.3	Rinodina exigua	19.3
Gagea reticulata	19.3	Ferula caspica	19.2
Climacoptera crassa	19.1	Allium inaequale	19.0
Xanthoparmelia ryssolea	18.9	Tulipa gesneriana	18.9
Neotorularia contortuplicata	18.9	Astragalus glaucus	18.9
Anisantha tectorum	18.9	Salvia aethiopis	18.8
Tulipa sylvestris	18.7	Stipa sareptana	18.7
Salsola laricina	18.6	Syntrichia ruralis	18.5
Festuca valesiaca	18.5	Caloplaca lobulata	18.5
Anabasis aphylla	18.5	Trifolium retusum	18.4
Bassia laniflora	18.4	Alyssum hirsutum	18.4
Medicago medicaginooides	18.1	Lappula marginata	18.1
Ranunculus oxyspermus	18.0	Lappula barbata	18.0
Astragalus asper	17.9	Chorispora tenella	17.7

Atriplex tatarica	17.7	Jurinea multiflora	17.6
Malabaila graveolens	17.5	Tragopogon dubius	17.1
Puccinellia dolicholepis	17.0	Tribulus terrestris	16.9
Allium saxatile	16.7	Peganum harmala	16.4
Astragalus subuliformis	16.2	Erysimum hieracifolium	16.0
Rhaponticum repens	15.8	Lepidium draba	15.4
Limonium meyeri	15.2		
<i>Constant species (occurrence frequencies)</i>			
Poa bulbosa	60.0	Artemisia lerchiana	58.0
Bassia prostrata	52.0	Leymus ramosus	48.0
Alyssum turkestanicum	48.0	Artemisia austriaca	42.0
Tanacetum achilleifolium	30.0	Festuca valesiaca	26.0
Bromus squarrosus	26.0	Agropyron cristatum	26.0
Meniocus linifolius	24.0	Eremopyrum orientale	22.0
Ceratocarpus arenarius	18.0	Carduus uncinatus	18.0
Camphorosma monspeliaca	18.0	Artemisia pauciflora	18.0
Syntrichia ruralis	16.0	Anisantha tectorum	16.0
Stipa lessingiana	14.0	Lamium amplexicaule	14.0
Holosteum umbellatum	14.0	Ephedra distachya	14.0
Bassia sedoides	14.0	Artemisia taurica	14.0
Agropyron desertorum	14.0	Senecio leucanthemifolius	12.0
Phlomis herba-venti	12.0	Medicago orthoceras	12.0
Lepidium perfoliatum	12.0	Elytrigia repens	12.0
Ceratocephala falcata	12.0	Agropyron fragile	12.0
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Agropyron cristatum	14.0	Leymus ramosus	12.0
Poa bulbosa	8.0	Artemisia lerchiana	6.0

R1D - [E13a] Mediterranean closely grazed dry grassland

<i>Diagnostic species (phi coefficient * 100)</i>			
Trifolium subterraneum	47.0	Poa bulbosa	46.4
Parentucellia latifolia	39.8	Plantago coronopus aggr.	32.8
Trifolium suffocatum	31.2	Bellis annua	30.9
Plantago lagopus	30.6	Ranunculus paludosus	30.3
Trifolium nigrescens	27.6	Trifolium tomentosum	27.2
Erodium cicutarium	25.1	Erodium botrys	23.1
Crassula tillaea	22.9	Trifolium glomeratum	22.5
Trifolium scabrum	22.4	Moenchia erecta	21.7
Galium murale	21.2	Plantago bellardii	20.9
Astragalus pelecinus	20.1	Romulea columnae	20.0
Sagina apetala	19.5	Paronychia argentea	18.5
Hypochaeris glabra	18.4	Allium chamaemoly	18.2
Sherardia arvensis	18.1	Ornithopus compressus	17.9
Filago pygmaea	17.5	Vulpia myuros	17.3

Alyssum turkestanicum	17.1	Moraea sisyrinchium	16.8
Hypochaeris cretensis	16.7	Sedum caespitosum	16.6
Ornithogalum collinum	16.5	Romulea bulbocodium	16.2
Lagurus ovatus	16.2	Trifolium cherleri	16.0
Tuberaria guttata	15.8	Crepis neglecta	15.4
Carex divisa	15.4		
<i>Constant species (occurrence frequencies)</i>			
Poa bulbosa	65.0	Plantago coronopus aggr.	34.0
Trifolium subterraneum	31.0	Erodium cicutarium	31.0
Parentucellia latifolia	22.0	Plantago lanceolata	20.0
Eryngium campestre	19.0	Trifolium scabrum	18.0
Sherardia arvensis	18.0	Plantago lagopus	18.0
Trifolium campestre	15.0	Ranunculus paludosus	15.0
Cynodon dactylon	14.0	Anthemis arvensis	14.0
Vulpia myuros	13.0	Trifolium nigrescens	13.0
Bellis annua	13.0	Trifolium suffocatum	12.0
Hypochaeris glabra	12.0	Dactylis glomerata	12.0
Veronica arvensis	11.0	Tuberaria guttata	11.0
Trifolium tomentosum	11.0	Trifolium glomeratum	11.0
Teucrium polium aggr.	11.0	Sagina apetala	11.0
Cerastium glomeratum	11.0		
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Poa bulbosa	25.0	Trifolium subterraneum	12.0
Plantago coronopus aggr.	6.0		

R1E - [E13b] Mediterranean tall perennial dry grassland

<i>Diagnostic species (phi coefficient * 100)</i>			
Macrochloa tenacissima	40.9	Brachypodium retusum	36.4
Hyparrhenia hirta	30.3	Helictotrichon filifolium	29.7
Reichardia picroides	27.5	Sedum sediforme	26.0
Helictochloa bromoides	25.3	Phlomis lychnitis	24.6
Stipa offneri	23.4	Lygeum spartum	22.6
Asphodelus ramosus	22.4	Asparagus horridus	21.7
Teucrium pseudochamaepitys	21.6	Carlina corymbosa	21.4
Convolvulus althaeoides	20.9	Phagnalon saxatile	20.2
Lapiedra martinezii	18.9	Thymus vulgaris	18.7
Arrhenatherum album	18.1	Linum strictum aggr.	17.8
Bituminaria bituminosa	17.6	Ruta angustifolia	17.2
Festuca scariosa	17.0	Asphodelus cerasiferus	16.4
Thymelaea hirsuta	15.6	Rosmarinus officinalis	15.3
Pallenis spinosa	15.1		
<i>Constant species (occurrence frequencies)</i>			
Brachypodium retusum	49.0	Dactylis glomerata	46.0

Thymus vulgaris	22.0	Sedum sediforme	21.0
Macrochloa tenacissima	21.0	Reichardia picroides	20.0
Eryngium campestre	19.0	Helictochloa bromoides	18.0
Hyparrhenia hirta	17.0	Asphodelus ramosus	17.0
Carlina corymbosa	16.0	Rosmarinus officinalis	14.0
Koeleria vallesiana	14.0	Daucus carota	13.0
Bituminaria bituminosa	13.0	Teucrium polium aggr.	12.0
Linum strictum aggr.	12.0	Helichrysum stoechas	12.0
Helictotrichon filifolium	11.0	Convolvulus althaeoides	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Brachypodium retusum	19.0	Macrochloa tenacissima	18.0
Lygeum spartum	7.0	Hyparrhenia hirta	7.0

R1F - [E13c] Mediterranean annual-rich dry grassland

*Diagnostic species (phi coefficient * 100)*

Asterolinon linum-stellatum	51.9	Trachynia distachya	50.6
Linum strictum aggr.	44.2	Euphorbia exigua	42.0
Catapodium rigidum	39.6	Minuartia hybrida aggr.	37.9
Hornungia petraea	37.4	Campanula erinus	36.5
Trifolium scabrum	36.1	Filago pyramidata	34.7
Hippocrepis ciliata	34.4	Atractylis cancellata	33.3
Helianthemum salicifolium	32.6	Neatostema apulum	32.5
Galium parisiense	32.5	Bombycilaena erecta	31.9
Medicago minima	31.8	Clypeola jonthlaspi	30.6
Ononis reclinata	29.3	Asteriscus aquaticus	29.1
Polygala monspeliaca	28.0	Cleonia lusitanica	28.0
Stipa capensis	25.1	Arenaria leptoclados	24.8
Hypochoeris achyrophorus	24.2	Bupleurum baldense	24.2
Velezia rigida	23.9	Scorpiurus muricatus	23.5
Echinaria capitata	23.1	Aegilops geniculata	23.1
Vulpia unilateralis	23.0	Cerastium gracile	22.6
Trifolium stellatum	22.2	Arabis auriculata	22.2
Leontodon saxatilis	21.7	Euphorbia falcata	21.6
Sherardia arvensis	21.5	Plantago afra	20.9
Crucianella angustifolia	20.8	Campanula fastigiata	20.8
Helianthemum ledifolium	20.6	Centranthus calcitrapae	20.0
Bupleurum semicompositum	19.1	Saxifraga tridactylites	19.0
Xeranthemum inapertum	18.7	Alyssum granatense	18.1
Lomelosia stellata	17.8	Tripodion tetraphyllum	17.7
Limonium echioides	17.7	Vulpia ciliata	17.5
Cerastium pumilum	17.5	Linaria simplex	17.4
Alyssum simplex	17.4	Hedypnois rhagadioloides	17.1
Arenaria obtusiflora	17.1	Anisantha fasciculata	16.8
Narduroides salzmannii	16.4	Linaria glauca	16.2
Valantia muralis	16.1	Crepis neglecta	15.9

Euphorbia sulcata	15.7	Coronilla scorpioides	15.7
Sideritis romana	15.4	Astragalus sesameus	15.2
Anisantha rubens	15.2	Valerianella discoidea	15.1
Medicago littoralis	15.1	Chaenorhinum rubrifolium	15.0

Constant species (occurrence frequencies)

Trachynia distachya	43.0	Asterolinon linum-stellatum	39.0
Euphorbia exigua	36.0	Linum strictum aggr.	35.0
Catapodium rigidum	34.0	Medicago minima	33.0
Trifolium scabrum	30.0	Minuartia hybrida aggr.	24.0
Filago pyramidata	24.0	Hornungia petraea	23.0
Sherardia arvensis	21.0	Leontodon saxatilis	21.0
Helianthemum salicifolium	19.0	Galium parisiense	19.0
Bombycilaena erecta	19.0	Campanula erinus	18.0
Arenaria leptoclados	18.0	Trifolium campestre	17.0
Erodium cicutarium	16.0	Anagallis arvensis	16.0
Hippocrepis ciliata	15.0	Neatostema apulum	14.0
Draba verna aggr.	14.0	Cerastium pumilum	14.0
Arenaria serpyllifolia	14.0	Trifolium stellatum	13.0
Ononis reclinata	13.0	Hypochaeris achyrophorus	13.0
Clypeola jonthlaspi	13.0	Bupleurum baldense	13.0
Atractylis cancellata	13.0	Saxifraga tridactylites	12.0
Aegilops geniculata	12.0	Scorpiurus muricatus	11.0
Euphorbia falcata	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Trachynia distachya	11.0
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R1G - [E15a] Iberian oromediterranean siliceous dry grassland

*Diagnostic species (phi coefficient * 100)*

Festuca indigesta	82.5	Jasione crispa	57.1
Sedum brevifolium	54.8	Luzula caespitosa	47.7
Silene ciliata	47.4	Neoschischkinia truncatula	36.7
Luzula spicata subsp. nevadensis	36.3	Pilosella vahlii	34.7
Dianthus langleanus	34.4	Teesdalia conferta	29.3
Scorzoneroides cantabrica	28.7	Jurinea humilis	25.3
Pilosella castellana	23.8	Hormathophylla spinosa	22.8
Sedum candolleianum	22.6	Sideritis hyssopifolia	22.3
Arenaria grandiflora	21.8	Festuca iberica	21.2
Festuca clementei	21.1	Galium pyrenaicum	20.5
Paronychia polygonifolia	20.2	Festuca eskia	20.2
Jasione laevis	20.1	Phalacrocarpum oppositifolium	19.9
Festuca gautieri	19.9	Phyteuma hemisphaericum	19.8
Minuartia recurva	19.8	Agrostis tileni	19.7
Helictotrichon sedenense	19.6	Armeria bigerrensis	19.4
Leontodon boryi	19.3	Koeleria vallesiana	18.8

Eryngium glaciale	18.8	Sideritis glacialis	18.7
Saxifraga fragosoi	18.4	Oxytropis neglecta	18.3
Medicago suffruticosa	18.3	Armeria alpina	18.3
Thymus nervosus	18.2	Thymus izcoi	17.8
Plantago alpina	17.6	Androsace villosa	17.6
Trisetum glaciale	17.3	Hormathophylla purpurea	17.1
Cerastium gracile	16.8	Plantago monosperma	16.7
Murbeckiella boryi	16.7	Vicia pyrenaica	16.5
Rumex suffruticosus	16.5	Bupleurum ranunculoides	16.5
Helictochloa marginata	16.2	Sideritis endressii	15.7
Cryptogramma crispa	15.6	Antennaria dioica	15.2
Viola crassiuscula	15.1	Armeria duriaei	15.1
<i>Constant species (occurrence frequencies)</i>			
Festuca indigesta	72.0	Jasione crispa	40.0
Avenella flexuosa	40.0	Sedum brevifolium	38.0
Silene ciliata	25.0	Luzula caespitosa	24.0
Koeleria vallesiana	19.0	Neoschischkinia truncatula	18.0
Anthyllis vulneraria	18.0	Lotus corniculatus	15.0
Helictochloa pratensis	15.0	Antennaria dioica	15.0
Nardus stricta	14.0	Luzula spicata subsp. nevadensis	14.0
Juniperus communis subsp. nana	14.0	Pilosella vahlii	12.0
Dianthus langeanus	12.0	Rumex acetosella	11.0
Plantago alpina	11.0	Phyteuma hemisphaericum	11.0
Helictotrichon sedenense	11.0	Festuca gautieri	11.0
Carex humilis	11.0	Arenaria grandiflora	11.0
Agrostis capillaris	11.0		
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Festuca indigesta	34.0	Luzula caespitosa	11.0

R1H - [E15b] Iberian oromediterranean basiphilous dry grassland

<i>Diagnostic species (phi coefficient * 100)</i>			
Festuca hystrix	83.3	Koeleria vallesiana	60.3
Helianthemum canum	52.8	Poa ligulata	48.2
Teucrium expassum	44.4	Arenaria grandiflora	39.9
Jurinea humilis	37.2	Seseli montanum	35.0
Arenaria aggregata	33.3	Coronilla minima	32.0
Helianthemum apenninum	29.8	Carthamus mitissimus	29.6
Paronychia kapela	29.5	Dianthus pungens	29.2
Thymus mastigophorus	27.0	Saxifraga conifera	26.7
Helianthemum croceum	26.3	Crepis albida	25.7
Festuca burnatii	24.7	Oreochloa confusa	23.8
Thymus munbyanus	23.5	Festuca marginata	23.4
Carthamus carduncellus	23.4	Arenaria tetraquetra	23.3
Sideritis hyssopifolia	22.9	Arenaria armerina	22.7

Odontites longiflora	22.6	Achillea odorata	22.3
Draba hispanica	21.6	Astragalus incanus	21.3
Erinacea anthyllis	20.7	Silene legionensis	20.4
Festuca nevadensis	19.9	Globularia repens	19.4
Fumana procumbens	19.4	Carex humilis	19.4
Saponaria caespitosa	19.2	Trinia glauca	18.6
Anthyllis vulneraria	18.5	Androsace villosa	18.5
Helictochloa pratensis	18.4	Globularia bisnagarica	18.4
Ononis striata	18.3	Klasea nudicaulis	18.2
Draba dedeana	18.2	Ononis pusilla	18.0
Potentilla tabernaemontani	17.9	Artemisia pedemontana	17.5
Arenaria obtusiflora	17.4	Helictochloa bromoides	17.2
Coris monspeliensis	17.2	Convolvulus lineatus	17.2
Asperula pyrenaica	17.2	Plantago monosperma	17.0
Lavandula latifolia	16.9	Sedum album	16.8
Hieracium bombycinum	16.6	Genista scorpius	16.5
Saxifraga canaliculata	16.4	Onobrychis reuteri	16.4
Chaenorhinum origanifolium	15.9	Thymus willkommii	15.8
Thymus praecox	15.6		
<i>Constant species (occurrence frequencies)</i>			
Festuca hystrix	75.0	Koeleria vallesiana	72.0
Helianthemum canum	51.0	Seseli montanum	31.0
Anthyllis vulneraria	31.0	Coronilla minima	30.0
Poa ligulata	26.0	Carex humilis	26.0
Teucrium expassum	23.0	Potentilla tabernaemontani	23.0
Arenaria grandiflora	23.0	Thymus praecox	22.0
Helianthemum apenninum	22.0	Helictochloa pratensis	20.0
Eryngium campestre	19.0	Sedum album	18.0
Teucrium chamaedrys	17.0	Jurinea humilis	17.0
Pilosella officinarum	16.0	Globularia bisnagarica	16.0
Fumana procumbens	16.0	Bromopsis erecta	16.0
Carthamus mitissimus	15.0	Arenaria aggregata	15.0
Paronychia kapela	14.0	Genista scorpius	14.0
Sanguisorba minor	13.0	Thymus vulgaris	12.0
Lavandula latifolia	12.0	Helichrysum stoechas	12.0
Helictochloa bromoides	12.0	Aphyllanthes monspeliensis	12.0
Trinia glauca	11.0	Sedum sediforme	11.0
Sedum acre	11.0	Plantago lanceolata	11.0
Ononis pusilla	11.0	Dianthus pungens	11.0
Crepis albida	11.0	Asperula cynanchica	11.0
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Festuca hystrix	33.0	Koeleria vallesiana	8.0

R1J - [E15c] Cyrno-Sardean oromediterranean siliceous dry grassland

*Diagnostic species (phi coefficient * 100)*

Sagina pilifera	86.9	Plantago subulata	86.6
Hypochaeris robertia	85.0	Pilosella lactucella	72.1
Sedum brevifolium	67.7	Armeria multiceps	66.1
Noccaea brevistyla	66.0	Ligusticum corsicum	65.7
Genista lobelii	64.8	Thymus herba-barona	64.5
Juniperus communis subsp. nana	56.9	Bellardiochloa variegata	56.7
Cerastium soleirolii	55.1	Bellium bellidioides	53.1
Drymocallis corsica	46.9	Armeria sardoa	46.5
Brimeura fastigiata	46.1	Crocus corsicus	45.6
Stachys corsica	45.3	Saxifraga pedemontana	44.8
Paronychia polygonifolia	44.6	Galium corsicum	44.6
Poa balbisii	44.4	Luzula spicata	44.1
Hypochaeris cretensis	42.5	Anthyllis hermanniae	39.8
Sedum dasyphyllum	37.2	Nardus stricta	37.0
Scleranthus perennis subsp. burnatii	33.1	Festuca morisiana	33.0
Arenaria balearica	32.6	Bromus grossus	32.5
Viola corsica	32.3	Dryopteris oreades	31.5
Agrostis castellana	31.3	Carlina macrocephala	30.4
Prunus prostrata	29.6	Cerastium gibraltarium	29.6
Dianthus sylvestris	29.5	Genista corsica	29.1
Bunium alpinum	28.6	Carex caryophyllea	28.1
Sesamoides purpurascens	28.0	Daphne oleoides	24.6
Santolina chamaecyparissus aggr.	23.2	Sedum album	20.6
Asplenium septentrionale	19.8	Poa alpina	18.8
Euphrasia salisburgensis	18.1	Agrostis rupestris	17.1
Spergularia rubra	15.7	Helichrysum italicum	15.4
Brachypodium pinnatum	15.0		

Constant species (occurrence frequencies)

Plantago subulata	89.0	Sagina pilifera	78.0
Pilosella lactucella	78.0	Nardus stricta	78.0
Hypochaeris robertia	78.0	Juniperus communis subsp. nana	67.0
Sedum brevifolium	56.0	Avenella flexuosa	56.0
Thymus herba-barona	44.0	Noccaea brevistyla	44.0
Ligusticum corsicum	44.0	Genista lobelii	44.0
Carex caryophyllea	44.0	Bellardiochloa variegata	44.0
Armeria multiceps	44.0	Luzula spicata	33.0
Cerastium soleirolii	33.0	Brachypodium pinnatum	33.0
Bellium bellidioides	33.0	Arrhenatherum elatius	33.0
Stachys corsica	22.0	Silene vulgaris	22.0
Sedum dasyphyllum	22.0	Sedum album	22.0
Saxifraga pedemontana	22.0	Poa balbisii	22.0
Poa alpina	22.0	Phleum pratense	22.0
Paronychia polygonifolia	22.0	Hypochaeris cretensis	22.0
Galium corsicum	22.0	Drymocallis corsica	22.0
Dianthus sylvestris	22.0	Crocus corsicus	22.0
Brimeura fastigiata	22.0	Armeria sardoa	22.0

Anthyllis hermanniae	22.0	Agrostis castellana	22.0
Viola corsica	11.0	Spergularia rubra	11.0
Sesamoides purpurascens	11.0	Scleranthus perennis subsp. burnatii	11.0
Santolina chamaecyparissus aggr.	11.0	Rumex acetosella	11.0
Prunus prostrata	11.0	Poa compressa	11.0
Poa bulbosa	11.0	Luzula forsteri	11.0
Juniperus communis subsp. communis	11.0	Helichrysum italicum	11.0
Geum montanum	11.0	Genista corsica	11.0
Festuca rubra	11.0	Festuca morisiana	11.0
Euphrasia salisburgensis	11.0	Dryopteris oreades	11.0
Draba verna aggr.	11.0	Digitalis purpurea	11.0
Daphne oleoides	11.0	Cerastium gibraltarium	11.0
Carlina macrocephala	11.0	Bunium alpinum	11.0
Bromus grossus	11.0	Asplenium trichomanes	11.0
Asplenium septentrionale	11.0	Arenaria balearica	11.0
Agrostis stolonifera	11.0	Agrostis rupestris	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Plantago subulata	33.0	Carex caryophyllea	22.0
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R1K - [E15d] Balkan and Anatolian oromediterranean dry grassland

*Diagnostic species (phi coefficient * 100)*

Alopecurus gerardi	75.1	Trifolium parnassii	73.3
Herniaria parnassica	72.9	Dianthus viscidus	55.4
Poa thessala	48.4	Phleum alpinum aggr.	48.4
Campanula spatulata	47.9	Plantago atrata	47.5
Festuca varia	46.0	Campanula radicata	44.4
Crocus sieberi	43.9	Ranunculus sartorianus	43.1
Carduus tmoleus	42.5	Plantago holosteum	41.5
Armeria canescens	40.2	Crocus veluchensis	34.1
Trifolium heldreichianum	32.0	Thymus longicaulis	31.1
Astragalus depressus	30.3	Luzula spicata	30.1
Taraxacum sect. Erythrosperma	29.9	Daphne oleoides	29.5
Bellardiochloa variegata	29.3	Campanula tymphaea	29.0
Cirsium hypopsilum	28.1	Silene roemeri	26.3
Dianthus petraeus	24.0	Taraxacum fontanicola	23.7
Poa trichopoda	23.7	Trinia frigida	23.4
Thymus boissieri	23.2	Ornithogalum exscapum	23.1
Myosotis suaveolens	22.9	Festuca oviniformis	22.7
Saxifraga sempervivum	22.5	Festuca polita	22.4
Astragalus sirinicus	22.4	Poa timoleontis	21.1
Marrubium velutinum	21.1	Thymus thracicus	20.5
Polygala nicaeensis aggr.	19.8	Asperula aristata	19.5
Pilosella cymosa	19.3	Viola striis-notata	16.8
Verbascum cylleneum	16.8	Sibbaldia parviflora	16.8
Euphorbia heldreichii	16.8	Erysimum drenowskii	16.8

Corydalis blanda subsp. parnassica	16.8	Colchicum parnassicum	16.8
Beta nana	16.8	Stachys tymphaea	16.7
Scleranthus perennis	16.7	Festuca olympica	16.7
Festuca korabensis	16.7	Dianthus tymphresteus	16.7
Cicer incisum	16.7	Astragalus apollineus	16.7
Asperula doerfleri	16.7	Hieracium sartorianum	16.6
Scilla bifolia	16.5	Draba lacaitae	16.5
Alyssum sphacioticum	16.5	Achillea ambrosiaca	16.5
Edraianthus parnassicus	16.4	Valantia aprica	16.3
Trisetum laconicum	16.3	Trifolium phleoides	16.3
Poa pumila	16.3	Mattiastrum lithospermifolium	16.3
Gagea peduncularis	16.3	Festuca hercegovinica	16.3
Cirsium tymphaeum	16.3	Viola graeca	16.2
Verbascum mallophorum	16.2	Sesleria rigida	16.2
Saxifraga scardica	16.2	Pilosella hoppeana	16.1
Ornithogalum oligophyllum	16.0	Luzula pindica	16.0
Carex kitaibeliana	16.0	Thesium parnassi	15.8
Cirsium heldreichii	15.8	Myosotis refracta	15.7
Crataegus pycnoloba	15.7	Orobanche elatior	15.6
Sesleria tenerrima	15.5	Fibigia clypeata	15.3
Cyanus pindicola	15.3	Sideritis scardica	15.2
Seseli kochii	15.1	Ranunculus psilostachys	15.1
<i>Constant species (occurrence frequencies)</i>			
Alopecurus gerardi	60.0	Trifolium parnassii	54.0
Herniaria parnassica	54.0	Phleum alpinum aggr.	49.0
Plantago atrata	34.0	Lotus corniculatus	31.0
Dianthus viscidus	31.0	Festuca varia	29.0
Campanula spatulata	29.0	Poa thessala	26.0
Plantago holosteuum	26.0	Thymus longicaulis	23.0
Armeria canescens	23.0	Taraxacum sect. Erythrosperma	20.0
Ranunculus sartorianus	20.0	Medicago lupulina	20.0
Luzula spicata	20.0	Crocus sieberi	20.0
Carduus tmoleus	20.0	Campanula radicata	20.0
Trifolium repens	17.0	Bellardiochloa variegata	17.0
Anthoxanthum odoratum aggr.	17.0	Scleranthus perennis	14.0
Rumex acetosella	14.0	Plantago lanceolata	14.0
Pilosella officinarum	14.0	Daphne oleoides	14.0
Crocus veluchensis	14.0	Trifolium heldreichianum	11.0
Trifolium alpestre	11.0	Nardus stricta	11.0
Bellis perennis	11.0	Astragalus depressus	11.0
Asperula aristata	11.0	Achillea millefolium aggr.	11.0
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Alopecurus gerardi	17.0	Plantago atrata	11.0
Plantago holosteuum	9.0	Nardus stricta	9.0
Trifolium parnassii	6.0	Poa timoleontis	6.0
Festuca varia	6.0		

R1L - [E15e] Madeiran oromediterranean siliceous dry grassland

*Diagnostic species (phi coefficient * 100)*

Aeonium glandulosum	78.5	Tolpis macrorhiza	70.5
Crepis vesicaria subsp. andryaloides	70.5	Andryala glandulosa	70.3
Sinapidendron frutescens	61.0	Sedum farinosum	61.0
Galium productum	61.0	Bupleurum salicifolium	61.0
Plantago arborescens	60.5	Parafestuca albida	49.8
Festuca jubata	49.8	Deschampsia maderensis	49.8
Armeria maderensis	49.8	Erysimum bicolor	49.6
Rumex maderensis	49.5	Helichrysum melaleucum	49.5
		Polypodium cambricum subsp.	
Dactylis smithii	49.5	macaronesicum	49.2
Ranunculus cortusifolius	48.9	Davallia canariensis	48.2
Vicia capreolata	35.2	Saxifraga maderensis	35.2
Plantago malato-belizii	35.2	Odontites holliana	35.2
Musschia aurea	35.2	Bunium brevifolium	35.2
Arabis alpina	35.2	Anthyllis lemanningiana	35.2
Aichryson villosum	35.2	Aichryson divaricatum	35.2
Tolpis succulenta	35.1	Lotus macranthus	35.1
Erica maderensis	35.1	Sideritis candicans	35.0
Genista tenera	35.0	Crepis heldreichiana	35.0
Crambe fruticosa	35.0	Pericallis aurita	34.9
Luzula elegans	34.7	Wahlenbergia lobelioides	34.0
Carlina salicifolia	33.9	Orobanche minor	32.8
Neoschischkinia reuteri	32.4	Micromeria graeca	22.9
Umbilicus rupestris	21.6		

Constant species (occurrence frequencies)

Aeonium glandulosum	62.0	Tolpis macrorhiza	50.0
Crepis vesicaria subsp. andryaloides	50.0	Andryala glandulosa	50.0
Sinapidendron frutescens	38.0	Sedum farinosum	38.0
Plantago arborescens	38.0	Galium productum	38.0
Bupleurum salicifolium	38.0	Rumex maderensis	25.0
		Polypodium cambricum subsp.	
Ranunculus cortusifolius	25.0	macaronesicum	25.0
Parafestuca albida	25.0	Helichrysum melaleucum	25.0
Festuca jubata	25.0	Erysimum bicolor	25.0
Deschampsia maderensis	25.0	Davallia canariensis	25.0
Dactylis smithii	25.0	Armeria maderensis	25.0
Arabis alpina	25.0	Anthoxanthum odoratum aggr.	25.0
Wahlenbergia lobelioides	12.0	Vicia capreolata	12.0
Umbilicus rupestris	12.0	Tolpis succulenta	12.0
Sideritis candicans	12.0	Saxifraga maderensis	12.0
Plantago malato-belizii	12.0	Pericallis aurita	12.0
Orobanche minor	12.0	Odontites holliana	12.0

Neoschischkinia reuteri	12.0	Musschia aurea	12.0
Micromeria graeca	12.0	Luzula elegans	12.0
Lotus macranthus	12.0	Genista tenera	12.0
Erica maderensis	12.0	Crepis heldreichiana	12.0
Crambe fruticosa	12.0	Carlina salicifolia	12.0
Bunium brevifolium	12.0	Asplenium trichomanes	12.0
Anthyllis lemanningiana	12.0	Aichryson villosum	12.0
Aichryson divaricatum	12.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Aeonium glandulosum	25.0	Musschia aurea	12.0
Festuca jubata	12.0	Deschampsia maderensis	12.0
Aichryson villosum	12.0		

R1M - [E17] Lowland to montane, dry to mesic grassland usually dominated by Nardus stricta

*Diagnostic species (phi coefficient * 100)*

Nardus stricta	41.0	Arnica montana	30.5
Carex pilulifera	26.3	Danthonia decumbens	23.5
Galium saxatile	22.8	Potentilla erecta	22.7
Potentilla aurea	20.8	Festuca filiformis	20.3
Hypericum maculatum	19.2	Antennaria dioica	18.6
Luzula campestris	17.8	Veronica officinalis	17.2
Viola canina	16.4	Pedicularis sylvatica	16.2
Agrostis capillaris	15.6		

Constant species (occurrence frequencies)

Nardus stricta	83.0	Potentilla erecta	75.0
Agrostis capillaris	55.0	Carex pilulifera	48.0
Anthoxanthum odoratum aggr.	42.0	Avenella flexuosa	41.0
Festuca rubra	40.0	Calluna vulgaris	39.0
Luzula campestris	37.0	Danthonia decumbens	37.0
Vaccinium myrtillus	35.0	Veronica officinalis	33.0
Galium saxatile	32.0	Hypericum maculatum	27.0
Arnica montana	26.0	Pilosella officinarum	25.0
Achillea millefolium aggr.	24.0	Viola canina	21.0
Luzula multiflora	20.0	Rumex acetosa	19.0
Potentilla aurea	19.0	Polygala vulgaris	19.0
Rhytidadelphus squarrosus	18.0	Pleurozium schreberi	18.0
Molinia caerulea aggr.	18.0	Festuca filiformis	18.0
Briza media	17.0	Antennaria dioica	17.0
Rumex acetosella	16.0	Plantago lanceolata	16.0
Lotus corniculatus	16.0	Festuca ovina	16.0
Campanula rotundifolia	16.0	Carex pallescens	14.0
Vaccinium vitis-idaea	13.0	Trifolium pratense	13.0
Succisa pratensis	13.0	Stellaria graminea	13.0
Leucanthemum vulgare aggr.	13.0	Festuca nigrescens	13.0

Deschampsia cespitosa	13.0	Carlina acaulis	13.0
Carex panicea	13.0	Pedicularis sylvatica	12.0
Luzula luzuloides	12.0	Holcus lanatus	12.0
Veronica chamaedrys	11.0	Thymus pulegioides	11.0
Ranunculus acris	11.0	Juncus squarrosus	11.0
Carex leporina	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Nardus stricta	52.0	Festuca filiformis	5.0
Avenella flexuosa	5.0		

R1N - [E18] Open Iberian supramediterranean dry acid and neutral grassland

*Diagnostic species (phi coefficient * 100)*

Festuca rivas-martinezii	56.4	Erodium foetidum	47.8
Colchicum montanum	33.0	Arenaria quereioides	30.3
Festuca summilusitana	29.7	Poa ligulata	29.1
Pilosella castellana	27.4	Koeleria crassipes	26.6
Neoschischkinia reuteri	25.8	Arenaria aggregata	25.4
Carthamus mitissimus	25.0	Agrostis schleicheri	25.0
Sedum brevifolium	24.7	Koeleria vallesiana	24.6
Arenaria grandiflora	24.1	Vicia pyrenaica	23.7
Alchemilla alpigena	23.3	Helianthemum canum	22.8
Teucrium pyrenaicum	21.2	Plantago subulata	21.0
Hormathophylla spinosa	21.0	Armeria eriophylla	21.0
Saxifraga trifurcata	20.7	Leucanthemopsis pulverulenta	20.4
Thymus praecox	20.3	Erinus alpinus	19.9
Crepis albida	18.9	Petrorhagia nanteuillii	18.8
Saxifraga erioblasta	18.6	Brassica repanda	18.5
Lotus glareosus	18.3	Linaria propinqua	17.8
Bellis sylvestris	17.6	Helianthemum croceum	17.2
Molineriella laevis	16.8	Helictochloa pratensis	16.6
Odontites tenuifolia	16.5	Odontarrhena serpyllifolia	16.4
Filago minima	16.2	Sedum nevadense	16.1
Sagina merinoi	15.7	Armeria trachyphylla	15.5
Centaurea resupinata	15.1	Sedum arenarium	15.0
Paronychia polygonifolia	15.0		

Constant species (occurrence frequencies)

Festuca rivas-martinezii	33.0	Thymus praecox	29.0
Lotus corniculatus	25.0	Koeleria vallesiana	25.0
Erodium foetidum	24.0	Bromopsis erecta	22.0
Plantago lanceolata	21.0	Sanguisorba minor	19.0
Potentilla tabernaemontani	19.0	Helictochloa pratensis	19.0
Helianthemum canum	19.0	Anthyllis vulneraria	19.0
Pilosella officinarum	18.0	Dactylis glomerata	17.0
Colchicum montanum	16.0	Helianthemum nummularium	15.0

Sedum album	14.0	Medicago lupulina	14.0
Briza media	14.0	Brachypodium rupestre	14.0
Festuca rubra	13.0	Trifolium repens	12.0
Teucrium pyrenaicum	12.0	Seseli montanum	12.0
Sedum brevifolium	12.0	Poa ligulata	12.0
Hypochaeris radicata	12.0	Galium verum	12.0
Filago minima	12.0	Clinopodium alpinum	12.0
Carthamus mitissimus	12.0	Bellis perennis	12.0
Arenaria grandiflora	12.0	Poa bulbosa	11.0
Plantago subulata	11.0	Plantago media	11.0
Arenaria querioides	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Festuca rivas-martinezii	18.0
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R1P - [E19a] Oceanic to subcontinental inland sand grassland on dry acid and neutral soils

*Diagnostic species (phi coefficient * 100)*

Trifolium arvense	29.6	Ceratodon purpureus	29.5
Cerastium semidecandrum	28.4	Rumex acetosella	27.5
Jasione montana	27.0	Ornithopus perpusillus	25.8
Brachytecium albicans	24.2	Helichrysum arenarium	23.8
Artemisia campestris	23.8	Festuca stricta subsp. trachyphylla	23.6
Corynephorus canescens	23.3	Pilosella officinarum	22.4
Scleranthus perennis	21.4	Polytrichum piliferum	21.1
Aira praecox	20.9	Potentilla argentea	20.7
Filago minima	20.7	Sedum acre	20.3
Hypochaeris radicata	19.6	Aira caryophyllea	17.6
Arenaria serpyllifolia	17.5	Veronica dillenii	16.5
Teesdalia nudicaulis	16.3	Thymus serpyllum	16.1
Myosotis stricta	15.5	Draba verna aggr.	15.2
Herniaria glabra	15.1	Syntrichia ruralis	15.0

Constant species (occurrence frequencies)

Rumex acetosella	57.0	Pilosella officinarum	51.0
Agrostis capillaris	40.0	Trifolium arvense	39.0
Achillea millefolium aggr.	38.0	Hypochaeris radicata	37.0
Ceratodon purpureus	35.0	Plantago lanceolata	33.0
Artemisia campestris	30.0	Jasione montana	29.0
Cerastium semidecandrum	27.0	Potentilla argentea	26.0
Festuca ovina	26.0	Arenaria serpyllifolia	26.0
Sedum acre	24.0	Hypericum perforatum	24.0
Polytrichum piliferum	23.0	Poa pratensis aggr.	23.0
Corynephorus canescens	23.0	Euphorbia cyparissias	21.0
Brachytecium albicans	21.0	Thymus serpyllum	20.0
Trifolium campestre	19.0	Scleranthus perennis	17.0
Ornithopus perpusillus	17.0	Draba verna aggr.	16.0

Luzula campestris	15.0	Helichrysum arenarium	15.0
Festuca stricta subsp. trachyphylla	15.0	Erigeron canadensis	15.0
Aira praecox	15.0	Galium verum	14.0
Filago minima	14.0	Festuca rubra	14.0
Cerastium arvense	14.0	Hypnum cupressiforme	13.0
Aira caryophylla	13.0	Veronica arvensis	12.0
Thymus pulegioides	12.0	Syntrichia ruralis	12.0
Sedum sexangulare	12.0	Armeria maritima	12.0
Teesdalia nudicaulis	11.0	Polytrichum juniperinum	11.0
Myosotis stricta	11.0	Festuca filiformis	11.0
Dianthus carthusianorum	11.0	Centaurea stoebe	11.0
Bromus hordeaceus	11.0	Anthoxanthum odoratum aggr.	11.0
Agrostis vinealis	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Festuca ovina	7.0	Pilosella officinarum	6.0
Festuca stricta subsp. trachyphylla	6.0	Ceratodon purpureus	6.0

R1Q - [E19b] Inland sanddrift and dune with siliceous grassland

*Diagnostic species (phi coefficient * 100)*

Corynephorus canescens	70.9	Spergula morisonii	63.9
Polytrichum piliferum	50.8	Teesdalia nudicaulis	43.8
Cetraria aculeata	38.8	Cladonia cervicornis	32.2
Rumex acetosella	30.0	Filago minima	29.1
Jasione montana	26.7	Cladonia glauca	25.1
Veronica dillenii	22.5	Cladonia phyllophora	21.7
Cladonia macilenta	21.7	Cladonia subulata	21.6
Ceratodon purpureus	21.2	Agrostis vinealis	20.7
Cladonia zopfii	20.1	Cladonia uncialis	20.1
Cladonia furcata	19.9	Cladonia foliacea	18.4
Cladonia mitis	17.8	Ornithopus perpusillus	17.2
Carex arenaria	17.2	Scleranthus perennis	17.1
Cephaloziella divaricata	17.1	Ceratodon purpureus	16.5
Aira praecox	15.7	Cladonia floerkeana	15.0

Constant species (occurrence frequencies)

Corynephorus canescens	88.0	Rumex acetosella	64.0
Polytrichum piliferum	63.0	Spergula morisonii	53.0
Teesdalia nudicaulis	35.0	Cetraria aculeata	33.0
Agrostis capillaris	33.0	Jasione montana	30.0
Pilosella officinarum	29.0	Ceratodon purpureus	26.0
Hypochaeris radicata	23.0	Filago minima	22.0
Festuca ovina	22.0	Carex arenaria	19.0
Cladonia uncialis	18.0	Cladonia furcata	18.0
Agrostis vinealis	17.0	Pinus sylvestris	16.0
Cladonia cervicornis	15.0	Scleranthus perennis	14.0

Calluna vulgaris	14.0	Veronica dillenii	13.0
Cladonia glauca	13.0	Cladonia arbuscula	13.0
Thymus serpyllum	12.0	Ornithopus perpusillus	12.0
Erigeron canadensis	12.0	Cladonia gracilis	12.0
Cladonia foliacea	12.0	Aira praecox	12.0
Cladonia pyxidata	11.0	Cladonia mitis	11.0
Cladonia macilenta	11.0	Artemisia campestris	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Corynephorus canescens	43.0	Polytrichum piliferum	14.0
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R1R - [E1A] Mediterranean to Atlantic open, dry, acid and neutral grassland

*Diagnostic species (phi coefficient * 100)*

Tuberaria guttata	65.4	Hypochaeris glabra	52.8
Filago gallica	43.6	Ornithopus compressus	42.6
Filago minima	42.2	Tolpis barbata	40.3
Plantago bellardii	37.7	Micropyrum tenellum	34.8
Vulpia bromoides	33.7	Rumex bucephalophorus	32.0
Aira caryophylla	32.0	Trifolium cherleri	31.3
Aira cupaniana	31.3	Ornithopus pinnatus	30.6
Crassula tillaea	30.1	Trifolium glomeratum	29.9
Vulpia myuros	29.4	Galium divaricatum	29.0
Anthoxanthum aristatum	27.9	Anthyllis lotoides	27.8
Vulpia ciliata	27.7	Silene gallica	26.8
Molineriella laevis	26.7	Teesdalia coronopifolia	26.6
Asterolinon linum-stellatum	26.4	Moenchia erecta	25.5
Briza maxima	25.4	Linum trigynum	24.9
Filago carpetana	24.5	Psilurus incurvus	23.9
Arnoseris minima	23.9	Ornithopus perpusillus	23.6
Sedum arenarium	23.4	Linaria pelisseriana	23.4
Trifolium arvense	23.0	Coronilla repanda	22.9
Leontodon saxatilis	21.9	Trisetaria ovata	20.7
Crucianella angustifolia	20.2	Andryala integrifolia	19.8
Paronychia cymosa	19.7	Tolpis umbellata	19.5
Trifolium bocconeii	19.2	Juncus capitatus	19.0
Poa bulbosa	18.9	Lathyrus angulatus	18.8
Neoschischkinia truncatula	18.5	Linaria spartea	18.4
Teesdalia nudicaulis	18.2	Trifolium campestre	17.9
Sedum andegavense	17.8	Silene scabriflora	17.6
Sedum caespitosum	17.6	Trifolium angustifolium	17.5
Centaurium maritimum	17.5	Sagina apetala	17.4
Hispidella hispanica	17.3	Petrorhagia nanteuilii	16.9
Lotus parviflorus	16.1	Linaria elegans	15.7
Aira tenorei	15.7	Aira elegantissima	15.7
Vulpia muralis	15.6	Silene portensis	15.5
Romulea columnae	15.5		

Constant species (occurrence frequencies)

Tuberaria guttata	58.0	Hypochaeris glabra	42.0
Filago minima	35.0	Trifolium arvense	31.0
Ornithopus compressus	28.0	Aira caryophyllea	27.0
Trifolium campestre	26.0	Filago gallica	26.0
Poa bulbosa	25.0	Vulpia myuros	23.0
Vulpia bromoides	22.0	Leontodon saxatilis	21.0
Tolpis barbata	20.0	Rumex acetosella	20.0
Plantago bellardii	20.0	Rumex bucephalophorus	19.0
Micropyrum tenellum	19.0	Briza maxima	18.0
Vulpia ciliata	17.0	Ornithopus perpusillus	17.0
Trifolium cherleri	16.0	Jasione montana	16.0
Galium divaricatum	16.0	Asterolinon linum-stellatum	16.0
Trifolium glomeratum	15.0	Silene gallica	15.0
Erodium cicutarium	14.0	Crassula tillaea	14.0
Anthoxanthum aristatum	14.0	Teesdalia nudicaulis	13.0
Aira cupaniana	13.0	Psilurus incurvus	12.0
Ornithopus pinnatus	12.0	Arnoseris minima	12.0
Trifolium scabrum	11.0	Trifolium angustifolium	11.0
Sherardia arvensis	11.0	Plantago lanceolata	11.0
Plantago coronopus aggr.	11.0	Petrorhagia prolifera	11.0
Linum trigynum	11.0	Anagallis arvensis	11.0
Aira praecox	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Tuberaria guttata	7.0
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R1S - [E1B] Heavy-metal grassland in Western and Central Europe

*Diagnostic species (phi coefficient * 100)*

Armeria alpina subsp. halleri	91.1	Minuartia verna	50.2
Viola calaminaria	43.7	Arabidopsis halleri	43.0
Cladonia furcata	35.6	Noccaea caerulescens	34.8
Silene vulgaris	28.6	Weissia controversa	26.1
Ceratodon purpureus	25.3	Cladonia subulata	25.1
Poa badensis	22.4	Campanula rotundifolia	21.5
Cladonia chlorophaea	21.1	Bryum caespiticium	21.1
Cladonia macilenta	18.9	Cladonia pyxidata	18.8
Cladonia rangiformis	18.3	Cladonia foliacea	18.3
Viola guestphalica	17.9	Phascum curvicolle	17.8
Cladonia ciliata	17.3	Cornicularia normoerica	17.2
Pottia starkeana	17.1	Riccia ciliifera	17.0
Festuca ovina	17.0	Thymus pulegioides	15.5

Constant species (occurrence frequencies)

Armeria alpina subsp. halleri	84.0	Agrostis capillaris	52.0
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Silene vulgaris	45.0	Minuartia verna	45.0
Rumex acetosa	42.0	Festuca ovina	42.0
Campanula rotundifolia	39.0	Cladonia furcata	35.0
Ceratodon purpureus	32.0	Plantago lanceolata	29.0
Arabidopsis halleri	29.0	Thymus pulegioides	26.0
Pimpinella saxifraga	26.0	Holcus lanatus	26.0
Rumex acetosella	23.0	Viola calaminaria	19.0
Achillea millefolium aggr.	19.0	Sedum acre	16.0
Ranunculus acris	16.0	Pseudoscleropodium purum	16.0
Polygala vulgaris	16.0	Poa pratensis aggr.	16.0
Hypnum cupressiforme	16.0	Festuca rubra	16.0
Cladonia pyxidata	16.0	Cladonia chlorophaea	16.0
Cerastium fontanum subsp. vulgare	16.0	Trifolium repens	13.0
Noccaea caerulescens	13.0	Potentilla erecta	13.0
Lotus corniculatus	13.0	Galium verum	13.0
Euphorbia cyparissias	13.0	Dianthus carthusianorum	13.0
Cladonia subulata	13.0	Cladonia rangiformis	13.0
Cladonia foliacea	13.0	Bryum caespiticium	13.0
Avenella flexuosa	13.0	Anthoxanthum odoratum aggr.	13.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Festuca ovina	29.0	Armeria alpina subsp. halleri	26.0
Festuca rubra	6.0	Cladonia rangiformis	6.0
Arabidopsis halleri	6.0	Agrostis capillaris	6.0

R1T - [E1F] Azorean open, dry, acid to neutral grassland

*Diagnostic species (phi coefficient * 100)*

Holcus rigidus	77.0	Agrostis congestiflora	63.1
Euphorbia azorica	63.0	Deschampsia foliosa	62.9
Luzula elegans	62.8	Brachypodium gaditanum	62.1
Agrostis castellana	48.6	Spergularia azorica	44.4
Festuca petraea	44.4	Carex hochstetterana	44.4
Vaccinium cylindraceum	44.2	Umbilicus gaditanus	44.2
Juniperus brevifolia	44.2	Huperzia dentata	44.2
Thymus caespititius	44.0	Centaurium scilloides	44.0
Asplenium marinum	42.8	Sibthorpia europaea	41.6
Sagina maritima	37.5	Lysimachia nemorum	32.6
Blechnum spicant	30.2	Erica scoparia	21.0
Rubia peregrina	19.4	Sphagnum palustre	18.3

Constant species (occurrence frequencies)

Holcus rigidus	60.0	Rubia peregrina	40.0
Lysimachia nemorum	40.0	Luzula elegans	40.0
Euphorbia azorica	40.0	Deschampsia foliosa	40.0
Brachypodium gaditanum	40.0	Blechnum spicant	40.0
Agrostis congestiflora	40.0	Agrostis castellana	40.0

Vaccinium cylindraceum	20.0	Umbilicus gaditanus	20.0
Thymus caespititius	20.0	Sphagnum palustre	20.0
Spergularia azorica	20.0	Sibthorpia europaea	20.0
Sagina maritima	20.0	Potentilla erecta	20.0
Plantago lanceolata	20.0	Lotus pedunculatus	20.0
Juniperus brevifolia	20.0	Juncus effusus	20.0
Huperzia dentata	20.0	Festuca petraea	20.0
Erica scoparia	20.0	Daucus carota	20.0
Clinopodium vulgare	20.0	Centaureum scilloides	20.0
Carex hochstetterana	20.0	Carex echinata	20.0
Asplenium marinum	20.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Holcus rigidus	20.0	Deschampsia foliosa	20.0
Brachypodium gaditanum	20.0		

R21 - [E21] Mesic permanent pasture of lowlands and mountains

*Diagnostic species (phi coefficient * 100)*

Trifolium repens	24.5	Lolium perenne	22.3
Bellis perennis	20.1	Scorzoneroides autumnalis	19.8
Cerastium fontanum subsp. vulgare	16.9	Cynosurus cristatus	16.6

Constant species (occurrence frequencies)

Trifolium repens	71.0	Plantago lanceolata	50.0
Festuca rubra	49.0	Lolium perenne	47.0
Agrostis capillaris	45.0	Cerastium fontanum subsp. vulgare	42.0
Achillea millefolium aggr.	40.0	Taraxacum sect. Taraxacum	39.0
Trifolium pratense	37.0	Poa pratensis aggr.	35.0
Ranunculus repens	34.0	Anthoxanthum odoratum aggr.	33.0
Scorzoneroides autumnalis	31.0	Holcus lanatus	31.0
Bellis perennis	31.0	Plantago major	30.0
Cynosurus cristatus	29.0	Lotus corniculatus	28.0
Agrostis stolonifera	28.0	Dactylis glomerata	26.0
Ranunculus acris	25.0	Prunella vulgaris	25.0
Poa trivialis	25.0	Hypochaeris radicata	24.0
Phleum pratense	21.0	Ochlopoa annua	21.0
Rumex acetosa	20.0	Schedonorus pratensis	19.0
Luzula campestris	14.0	Pilosella officinarum	12.0
Cirsium arvense	12.0	Veronica chamaedrys	11.0
Rumex acetosella	11.0	Rhynchospora squarrosus	11.0
Ranunculus bulbosus	11.0	Potentilla erecta	11.0
Elytrigia repens	11.0	Cardamine pratensis	11.0
Bromus hordeaceus	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Festuca rubra	14.0	Lolium perenne	13.0
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Trifolium repens	10.0	Agrostis capillaris	10.0
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R22 - [E22] Low and medium altitude hay meadow

*Diagnostic species (phi coefficient * 100)*

Trisetum flavescens	24.9	Arrhenatherum elatius	21.7
Leucanthemum vulgare aggr.	20.7	Plantago lanceolata	20.0
Rumex acetosa	19.9	Trifolium pratense	19.6
Achillea millefolium aggr.	19.1	Crepis biennis	18.3
Festuca rubra	18.1	Cerastium fontanum subsp. vulgare	17.5
Ranunculus acris	17.2	Dactylis glomerata	16.7
Schedonorus pratensis	16.5	Poa pratensis aggr.	15.9
Avenula pubescens	15.6	Knautia arvensis	15.1
Holcus lanatus	15.1		

Constant species (occurrence frequencies)

Plantago lanceolata	63.0	Dactylis glomerata	61.0
Achillea millefolium aggr.	60.0	Festuca rubra	59.0
Rumex acetosa	52.0	Trifolium pratense	51.0
Holcus lanatus	50.0	Anthoxanthum odoratum aggr.	50.0
Ranunculus acris	47.0	Poa pratensis aggr.	47.0
Cerastium fontanum subsp. vulgare	41.0	Arrhenatherum elatius	41.0
Agrostis capillaris	41.0	Trifolium repens	39.0
Veronica chamaedrys	38.0	Lotus corniculatus	38.0
Leucanthemum vulgare aggr.	38.0	Taraxacum sect. Taraxacum	35.0
Schedonorus pratensis	32.0	Galium mollugo aggr.	32.0
Trisetum flavescens	28.0	Lathyrus pratensis	27.0
Vicia cracca	26.0	Briza media	26.0
Centaurea jacea	25.0	Poa trivialis	24.0
Leontodon hispidus	24.0	Heracleum sphondylium	24.0
Luzula campestris	22.0	Prunella vulgaris	21.0
Knautia arvensis	21.0	Alopecurus pratensis	21.0
Stellaria graminea	20.0	Galium verum	20.0
Ranunculus repens	19.0	Daucus carota	19.0
Cynosurus cristatus	19.0	Pimpinella saxifraga	17.0
Lolium perenne	17.0	Medicago lupulina	16.0
Avenula pubescens	16.0	Potentilla erecta	15.0
Plantago media	15.0	Phleum pratense	15.0
Bromus hordeaceus	15.0	Ranunculus bulbosus	14.0
Hypochaeris radicata	14.0	Campanula patula	14.0
Bellis perennis	14.0	Rhinanthus minor	13.0
Elytrigia repens	13.0	Deschampsia cespitosa	13.0
Crepis biennis	13.0	Cirsium arvense	13.0
Anthriscus sylvestris	13.0	Tragopogon pratensis	12.0
Silene flos-cuculi	12.0	Hypericum perforatum	12.0
Trifolium dubium	11.0	Scorzoneroideis autumnalis	11.0
Sanguisorba minor	11.0	Rhytidadelphus squarrosus	11.0

Pilosella officinarum	11.0	Equisetum arvense	11.0
Cardamine pratensis	11.0	Ajuga reptans	11.0
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Festuca rubra	14.0	Arrhenatherum elatius	12.0
Agrostis capillaris	8.0	Holcus lanatus	6.0

R23 - [E23] Mountain hay meadow

*Diagnostic species (phi coefficient * 100)*

Geranium sylvaticum aggr.	42.9	Phleum alpinum aggr.	35.6
Crepis pyrenaica	35.5	Meum athamanticum	34.1
Astrantia major	33.0	Trollius europaeus	30.8
Poa chaixii	29.2	Phyteuma orbiculare	26.0
Hypericum maculatum	26.0	Bistorta vivipara	25.9
Alchemilla vulgaris aggr.	25.8	Crepis mollis	25.5
Phyteuma spicatum	24.9	Crocus vernus	24.8
Arabidopsis halleri	23.7	Carex sempervirens	22.7
Phleum hirsutum	22.3	Rumex arifolius	21.4
Pimpinella major	21.2	Carlina acaulis	21.2
Campanula scheuchzeri	20.7	Potentilla aurea	20.6
Bistorta officinalis	20.4	Pedicularis foliosa	19.7
Scabiosa lucida	18.9	Anemonastrum narcissiflorum	18.5
Gentiana lutea	18.4	Galium pumilum	18.4
Rhinanthus alectorolophus	18.3	Leontodon hispidus	18.1
Leucanthemum vulgare aggr.	18.0	Traunsteinera globosa	17.1
Trifolium pratense	16.9	Pulsatilla alpina	16.9
		Ranunculus polyanthemos subsp. nemorosus	16.6
Carduus defloratus aggr.	16.7	Chaerophyllum villarsii	16.6
Narcissus poeticus	16.6	Gymnadenia conopsea	16.1
Anthoxanthum odoratum aggr.	16.3	Cyanus montanus	15.6
Thesium pyrenaicum	15.6	Silene vulgaris	15.5
Veratrum album	15.5	Carex ferruginea	15.2
Arnica montana	15.4	Trifolium badium	15.0
Alchemilla conjuncta aggr.	15.2		

Constant species (occurrence frequencies)

Geranium sylvaticum aggr.	62.0	Anthoxanthum odoratum aggr.	60.0
Festuca rubra	52.0	Trifolium pratense	51.0
Agrostis capillaris	50.0	Potentilla erecta	41.0
Leucanthemum vulgare aggr.	41.0	Dactylis glomerata	40.0
Lotus corniculatus	38.0	Leontodon hispidus	37.0
Hypericum maculatum	37.0	Achillea millefolium aggr.	37.0
Briza media	36.0	Phyteuma spicatum	35.0
Alchemilla vulgaris aggr.	34.0	Rumex acetosa	33.0
Ranunculus acris	33.0	Trollius europaeus	32.0
Bistorta vivipara	32.0	Veronica chamaedrys	31.0

Phleum alpinum aggr.	31.0	Deschampsia cespitosa	31.0
Bistorta officinalis	29.0	Astrantia major	29.0
Plantago lanceolata	27.0	Phyteuma orbiculare	27.0
Carlina acaulis	27.0	Nardus stricta	25.0
Helianthemum nummularium	25.0	Trisetum flavescens	24.0
Silene vulgaris	24.0	Poa chaixii	24.0
Pimpinella major	24.0	Carex sempervirens	24.0
Meum athamanticum	23.0	Galium pumilum	23.0
Trifolium repens	22.0	Heracleum sphondylium	21.0
Campanula scheuchzeri	21.0	Anthyllis vulneraria	21.0
Vaccinium myrtillus	19.0	Potentilla aurea	19.0
Luzula campestris	19.0	Lathyrus pratensis	19.0
Ranunculus polyanthemus subsp. nemorosus	18.0	Cerastium fontanum subsp. vulgare	18.0
Campanula rotundifolia	18.0	Avenella flexuosa	18.0
Taraxacum sect. Taraxacum	17.0	Rumex arifolius	17.0
Crepis pyrenaica	17.0	Vicia cracca	16.0
Trifolium montanum	16.0	Plantago media	16.0
Gymnadenia conopsea	16.0	Carduus defloratus aggr.	16.0
Veratrum album	15.0	Stellaria graminea	15.0
Primula elatior	15.0	Luzula luzuloides	15.0
Crocus vernus	15.0	Solidago virgaurea	14.0
Scabiosa lucida	14.0	Rhinanthus alectorolophus	14.0
Polygala vulgaris	14.0	Poa alpina	14.0
Chaerophyllum hirsutum	14.0	Gentiana lutea	14.0
Galium mollugo aggr.	14.0	Crepis mollis	14.0
Avenula pubescens	14.0	Ajuga reptans	14.0
Tragopogon pratensis	13.0	Linum catharticum	13.0
Laserpitium latifolium	13.0	Knautia arvensis	13.0
Arnica montana	13.0	Pulsatilla alpina	12.0
Prunella vulgaris	12.0	Poa pratensis aggr.	12.0
Luzula multiflora	12.0	Homogyne alpina	12.0
Hippocrepis comosa	12.0	Arabidopsis halleri	12.0
Vicia sepium	11.0	Sesleria caerulea	11.0
Sanguisorba minor	11.0	Rhinanthus minor	11.0
Geum montanum	11.0	Galium verum	11.0
Festuca nigrescens	11.0	Centaurea jacea	11.0
Carex montana	11.0		
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Festuca rubra	8.0	Nardus stricta	6.0
Agrostis capillaris	6.0	Meum athamanticum	5.0
Geranium sylvaticum aggr.	5.0		

R24 - [E24] Iberian summer pasture (vallicar)

*Diagnostic species (phi coefficient * 100)*

Festuca ampla	78.8	Agrostis castellana	75.5
Festuca rothmaleri	40.4	Trifolium strictum	35.9
Trifolium striatum	33.4	Anthoxanthum aristatum	32.8
Holcus annuus	31.7	Ranunculus ollissiponensis	31.3
Celtica gigantea	30.4	Chamaemelum nobile	30.2
Carex laevigata	28.9	Festuca elegans	27.6
Aira caryophyllea	27.3	Anacamptis coriophora	26.6
Euphrasia hirtella	26.4	Dianthus lusitanus	25.2
Scorzoneroides carpetana	24.3	Saxifraga fragosoi	24.3
Bartramia pomiformis	24.3	Hyacinthoides hispanica	23.6
Koeleria crassipes	23.4	Trifolium glomeratum	23.1
Sanguisorba verrucosa	22.8	Allium guttatum	22.8
Lotus glareosus	22.7	Parentucellia viscosa	21.7
Hypochaeris radicata	21.5	Ranunculus bulbosus	20.9
Serapias lingua	20.0	Iris filifolia	19.4
Massalongia carnosae	19.3	Marsupella sprucei	19.3
Coelocaulon crespoeae	19.3	Centaurea carratracensis	19.3
Teucrium reverchonii	19.2	Sedum forsterianum	19.2
Dianthus legionensis	19.2	Armeria transmontana	19.2
Aquilegia nevadensis	19.1	Potentilla asturica	19.0
Scorzonera baetica	18.9	Elaeoselinum meoides	18.8
Echium flavum	18.8	Armeria eriophylla	18.8
Echium plantagineum	18.6	Trifolium cernuum	18.5
Centaurea castellana	18.4	Carum verticillatum	18.4
Sedum lagascae	18.3	Ranunculus granatensis	18.0
Thymus bracteatus	17.9	Linum bienne	17.9
Paradisea lusitanica	17.7	Trifolium angustifolium	17.5
Festuca arvernensis subsp. costei	17.4	Sedum brevifolium	17.3
Carduus pycnocephalus	17.1	Phalacrocarpum oppositifolium	17.0
Rhinanthus minor	16.7	Odontarrhena serpyllifolia	16.6
Genista hystrix	16.6	Cistus ladanifer	16.6
Achillea tomentosa	16.6	Trifolium sylvaticum	16.5
Taeniatherum caput-medusae	16.4	Peltigera malacea	16.4
Genista micrantha	16.4	Bryum alpinum	16.4
Juncus squarrosus	16.3	Festuca summilusitana	16.1
Anthoxanthum ovatum	16.1	Cladonia merochlorophaea	15.9
Micropyrum tenellum	15.8	Leontodon saxatilis	15.8
Phalaris paradoxa	15.7	Cetraria muricata	15.5
Wahlenbergia hederacea	15.4	Pilosella castellana	15.4
Vulpia myuros	15.3	Sedum arenarium	15.3
Helictochloa marginata	15.3	Vulpia geniculata	15.2
Festuca rivas-martinezii	15.1	Arenaria querioides	15.1
<i>Constant species (occurrence frequencies)</i>			
Agrostis castellana	77.0	Festuca ampla	65.0
Plantago lanceolata	50.0	Holcus lanatus	46.0
Hypochaeris radicata	42.0	Trifolium pratense	35.0
Ranunculus bulbosus	35.0	Pilosella officinarum	31.0

Trifolium striatum	27.0	Trifolium repens	27.0
Nardus stricta	27.0	Galium verum	27.0
Rhinanthus minor	23.0	Festuca rothmaleri	23.0
Daucus carota	23.0	Cynosurus cristatus	23.0
Aira caryophylla	23.0	Trifolium strictum	19.0
Dactylis glomerata	19.0	Anthoxanthum aristatum	19.0
Trifolium dubium	15.0	Trifolium campestre	15.0
Sanguisorba minor	15.0	Prunella vulgaris	15.0
Poa bulbosa	15.0	Luzula multiflora	15.0
Leontodon saxatilis	15.0	Juncus squarrosus	15.0
Chamaemelum nobile	15.0	Eryngium campestre	15.0
Danthonia decumbens	15.0	Carum verticillatum	15.0
Carex laevigata	15.0	Arrhenatherum elatius	15.0
Anthoxanthum odoratum aggr.	15.0	Achillea millefolium aggr.	15.0
Vulpia myuros	12.0	Trifolium glomeratum	12.0
Trifolium angustifolium	12.0	Sanguisorba verrucosa	12.0
Ranunculus ollissiponensis	12.0	Potentilla erecta	12.0
Linum bienne	12.0	Juncus acutiflorus	12.0
Jasione montana	12.0	Holcus annuus	12.0
Festuca elegans	12.0	Euphrasia hirtella	12.0
Dactylorhiza maculata	12.0	Convolvulus arvensis	12.0
Celtica gigantea	12.0	Bromus hordeaceus	12.0
Briza media	12.0	Anacamptis coriophora	12.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Agrostis castellana	38.0	Festuca ampla	31.0
Nardus stricta	12.0	Celtica gigantea	12.0
Saxifraga fragosoi	8.0	Poa bulbosa	8.0
Holcus lanatus	8.0		

R31 - [E31a] Mediterranean tall humid inland grassland

*Diagnostic species (phi coefficient * 100)*

Scirpoides holoschoenus	54.8	Sonchus maritimus	41.0
Cirsium monspessulanum	39.9	Dittrichia viscosa	37.5
Schoenus nigricans	36.4	Lysimachia ephemerum	31.5
Carex mairei	30.6	Juncus acutus	29.9
Juncus maritimus	29.3	Lotus maritimus	28.1
Cirsium pyrenaicum	27.8	Linum maritimum	25.1
Pulicaria dysenterica	24.9	Samolus valerandi	23.7
Dorycnium rectum	23.5	Tripidium ravennae	23.4
Dactylorhiza elata	21.1	Hypericum caprifolium	20.7
Imperata cylindrica	20.6	Oenanthe lachenalii	20.5
Blackstonia perfoliata	20.1	Juncus inflexus	19.8
Equisetum ramosissimum	18.1	Plantago crassifolia	16.7
Cyperus eragrostis	16.1		

Constant species (occurrence frequencies)

Scirpoides holoschoenus	55.0	Schoenus nigricans	32.0
Agrostis stolonifera	32.0	Dittrichia viscosa	30.0
Molinia caerulea aggr.	24.0	Sonchus maritimus	22.0
Juncus inflexus	22.0	Pulicaria dysenterica	20.0
Phragmites australis	19.0	Juncus maritimus	19.0
Holcus lanatus	19.0	Cirsium monspessulanum	19.0
Carex flacca	19.0	Schedonorus arundinaceus	16.0
Lotus maritimus	16.0	Samolus valerandi	15.0
Mentha longifolia	15.0	Lythrum salicaria	15.0
Juncus acutus	15.0	Blackstonia perfoliata	15.0
Potentilla reptans	14.0	Juncus articulatus	14.0
Brachypodium phoenicoides	14.0	Prunella vulgaris	13.0
Trifolium pratense	12.0	Equisetum ramosissimum	12.0
Oenanthe lachenalii	11.0	Lysimachia ephemerum	11.0
Eupatorium cannabinum	11.0	Cirsium pyrenaicum	11.0
Carex mairei	11.0	Carex distans	11.0
Briza media	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Schoenus nigricans	17.0	Scirpoides holoschoenus	17.0
Molinia caerulea aggr.	14.0	Juncus inflexus	8.0

R32 - [E32a] Mediterranean short moist grassland of lowlands

*Diagnostic species (phi coefficient * 100)*

Deschampsia media	86.0	Prunella hyssopifolia	69.8
Plantago maritima subsp. serpentina	55.5	Jasonia tuberosa	52.5
Leontodon hirtus	49.0	Lotus tenuis	47.3
Centaurium pulchellum	38.1	Scilla litardierei	26.3
Linum suffruticosum aggr.	24.4	Schoenus nigricans	24.3
Leucanthemum pallens	23.9	Carex flacca	23.5
Trifolium lappaceum	23.3	Brachypodium phoenicoides	22.0
Thymelaea passerina	21.5	Fumana ericifolia	18.9
Koeleria vallesiana	18.7	Hypericum tomentosum	18.7
Centaurea jacea	18.6	Sisymbrella aspera	18.3
Peucedanum coriaceum	18.0	Centaurea jacea subsp. vinyalsii	17.6
Anacamptis palustris aggr.	16.3	Blackstonia perfoliata	15.1

Constant species (occurrence frequencies)

Deschampsia media	76.0	Carex flacca	59.0
Prunella hyssopifolia	52.0	Plantago maritima subsp. serpentina	47.0
Lotus tenuis	41.0	Centaurea jacea	37.0
Agrostis stolonifera	32.0	Jasonia tuberosa	31.0
Leontodon hirtus	29.0	Centaurium pulchellum	25.0
Lotus corniculatus	23.0	Brachypodium phoenicoides	21.0
Schoenus nigricans	20.0	Briza media	20.0

Koeleria vallesiana	19.0	Pilosella officinarum	17.0
Linum suffruticosum aggr.	17.0	Sanguisorba minor	16.0
Juncus articulatus	16.0	Cichorium intybus	16.0
Thymus serpyllum	15.0	Festuca ovina	15.0
Potentilla tabernaemontani	13.0	Potentilla reptans	13.0
Dorycnium pentaphyllum	13.0	Bromopsis erecta	13.0
Linum catharticum	12.0	Genista scorpius	12.0
Festuca pallens	12.0	Daucus carota	12.0
Juncus bufonius	11.0	Deschampsia cespitosa	11.0
Carex distans	11.0	Blackstonia perfoliata	11.0
Asperula cynanchica	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Deschampsia media	56.0	Prunella hyssopifolia	19.0
Plantago maritima subsp. serpentina	15.0	Jasonia tuberosa	8.0
Carex flacca	7.0		

R33 - [E32b] Mediterranean short moist grassland of mountains

*Diagnostic species (phi coefficient * 100)*

Festuca rothmaleri	63.0	Festuca iberica	50.8
Narcissus bulbocodium	48.5	Juncus squarrosus	38.6
Nardus stricta	38.3	Scorzoneroideis carpetana	36.3
Campanula herminii	35.4	Carum verticillatum	35.3
Agrostis castellana	32.1	Jasione laevis	30.4
Ranunculus bulbosus	27.4	Pedicularis sylvatica	27.4
Festuca microphylla	23.3	Scorzoneroideis microcephala	18.8
Euphrasia hirtella	18.5	Carex leporina	18.5
Anthoxanthum aristatum	18.4	Lotus glareosus	18.3
Ranunculus abnormis	17.0	Danthonia decumbens	16.9
Sagina saginoides	15.7	Genista anglica	15.7
Juncus acutiflorus	15.5	Plantago nivalis	15.4
Galium saxatile	15.2	Agrostis nevadensis	15.2

Constant species (occurrence frequencies)

Nardus stricta	80.0	Ranunculus bulbosus	46.0
Festuca rothmaleri	46.0	Juncus squarrosus	40.0
Potentilla erecta	39.0	Trifolium repens	38.0
Anthoxanthum odoratum aggr.	34.0	Carum verticillatum	32.0
Trifolium pratense	28.0	Pilosella officinarum	28.0
Holcus lanatus	28.0	Festuca iberica	28.0
Danthonia decumbens	28.0	Narcissus bulbocodium	26.0
Luzula campestris	26.0	Cynosurus cristatus	24.0
Carex leporina	24.0	Pedicularis sylvatica	22.0
Galium saxatile	22.0	Agrostis castellana	22.0
Hypochaeris radicata	20.0	Juncus acutiflorus	19.0
Briza media	19.0	Lotus pedunculatus	18.0

Jasione laevis	16.0	Lotus corniculatus	15.0
Scorzoneroides carpetana	14.0	Plantago lanceolata	14.0
Galium verum	14.0	Carex caryophylla	14.0
Campanula herminii	14.0	Agrostis capillaris	13.0
Luzula multiflora	12.0	Juncus effusus	12.0
Deschampsia cespitosa	12.0	Calluna vulgaris	12.0
Prunella vulgaris	11.0	Carex nigra	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Nardus stricta	56.0	Festuca rothmaleri	12.0
Juncus squarrosus	8.0	Juncus acutiflorus	7.0
Festuca iberica	6.0	Cynosurus cristatus	6.0

R34 - [E33] Submediterranean moist meadow

*Diagnostic species (phi coefficient * 100)*

Alopecurus rendlei	67.6	Trifolium resupinatum	59.2
Moenchia mantica	59.0	Trifolium patens	55.3
Crepis setosa	51.8	Bromus racemosus	43.7
Trifolium pallidum	41.4	Bromus commutatus	41.4
Ranunculus sardous	40.3	Ranunculus velutinus	38.4
Oenanthe silaifolia	36.9	Trifolium michelianum	34.1
Hordeum secalinum	32.4	Anacamptis palustris aggr.	28.9
Trifolium fragiferum	28.5	Hordeum geniculatum	28.0
Galium debile	27.9	Gratiola officinalis	27.4
Rhinanthus rumelicus	25.9	Schedonorus pratensis	22.4
Oenanthe banatica	22.4	Cichorium intybus	22.4
Carex cuprina	22.2	Carex distans	22.1
Potentilla reptans	21.8	Cirsium canum	21.3
Scilla litardierei	21.2	Lolium perenne	20.5
Medicago arabica	20.2	Rorippa pyrenaica	20.1
Alopecurus pratensis	20.1	Trifolium hybridum	19.7
Trifolium incarnatum	19.2	Cynosurus cristatus	18.8
Trifolium striatum	18.6	Trifolium nigrescens	18.6
Tragopogon pratensis	18.6	Poa trivialis	18.0
Scutellaria hastifolia	17.8	Plantago lanceolata	17.7
Rorippa sylvestris	17.3	Trifolium pratense	17.0
Clematis integrifolia	17.0	Rorippa lippizensis	16.9
Leucojum aestivum	16.6	Trifolium cinctum	16.2
Rumex crispus	16.2	Lotus tenuis	16.1
Carex hirta	15.9	Podospermum laciniatum	15.7
Cynodon dactylon	15.6	Ranunculus neapolitanus	15.4
Mentha pulegium	15.2	Trigonella procumbens	15.0

Constant species (occurrence frequencies)

Plantago lanceolata	65.0	Poa trivialis	59.0
Trifolium pratense	52.0	Schedonorus pratensis	50.0

Lolium perenne	49.0	Alopecurus rendlei	48.0
Moenchia mantica	46.0	Trifolium repens	45.0
Lotus corniculatus	45.0	Trifolium resupinatum	43.0
Trifolium patens	43.0	Anthoxanthum odoratum aggr.	42.0
Alopecurus pratensis	42.0	Crepis setosa	41.0
Taraxacum sect. Taraxacum	38.0	Poa pratensis aggr.	38.0
Bromus racemosus	38.0	Ranunculus acris	37.0
Potentilla reptans	37.0	Cynosurus cristatus	37.0
Ranunculus sardous	35.0	Silene flos-cuculi	32.0
Rumex crispus	29.0	Leucanthemum vulgare aggr.	27.0
Convolvulus arvensis	27.0	Cichorium intybus	26.0
Carex hirta	26.0	Bromus commutatus	26.0
Achillea millefolium aggr.	26.0	Trifolium fragiferum	24.0
Ranunculus repens	23.0	Oenanthe silaifolia	23.0
Elytrigia repens	23.0	Tragopogon pratensis	22.0
Galium verum	22.0	Daucus carota	22.0
Rumex acetosa	21.0	Prunella vulgaris	21.0
Trifolium pallidum	20.0	Hordeum secalinum	20.0
Trifolium hybridum	19.0	Gratiola officinalis	19.0
Cynodon dactylon	19.0	Lysimachia nummularia	18.0
Rorippa sylvestris	17.0	Ranunculus velutinus	17.0
Carex distans	17.0	Agrostis stolonifera	17.0
Trifolium dubium	16.0	Rhinanthus rumelicus	16.0
Centaurea jacea	16.0	Anacamptis palustris aggr.	16.0
Lathyrus pratensis	15.0	Holcus lanatus	15.0
Cirsium canum	15.0	Carex cuprina	15.0
Bromus hordeaceus	15.0	Trifolium michelianum	14.0
Rhinanthus minor	14.0	Trifolium striatum	13.0
Trifolium campestre	12.0	Rumex acetosella	12.0
Plantago major	12.0	Ononis spinosa	12.0
Medicago lupulina	12.0	Hypochaeris radicata	12.0
Hordeum geniculatum	12.0	Galium debile	12.0
Verbena officinalis	11.0	Trifolium incarnatum	11.0
Ranunculus polyanthemus	11.0	Mentha pulegium	11.0
Lythrum salicaria	11.0	Lotus tenuis	11.0
Filipendula vulgaris	11.0	Carex vulpina	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Poa trivialis	19.0	Alopecurus rendlei	13.0
Trifolium patens	8.0	Bromus racemosus	8.0
Hordeum secalinum	7.0	Alopecurus pratensis	7.0
Trifolium resupinatum	6.0	Schedonorus pratensis	6.0

R35 - [E34a] Moist or wet mesotrophic to eutrophic hay meadow

*Diagnostic species (phi coefficient * 100)*

Scirpus sylvaticus	23.0	Silene flos-cuculi	21.4
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Lotus pedunculatus	19.8	Filipendula ulmaria	19.4
Caltha palustris	19.0	Galium uliginosum	18.1
Equisetum palustre	17.8	Juncus effusus	17.7
Cirsium palustre	16.5	Cardamine pratensis	15.1
<i>Constant species (occurrence frequencies)</i>			
Holcus lanatus	48.0	Filipendula ulmaria	48.0
Juncus effusus	44.0	Ranunculus acris	42.0
Ranunculus repens	41.0	Silene flos-cuculi	40.0
Deschampsia cespitosa	40.0	Caltha palustris	40.0
Rumex acetosa	38.0	Galium palustre	36.0
Equisetum palustre	36.0	Cirsium palustre	35.0
Poa trivialis	34.0	Cardamine pratensis	33.0
Lotus pedunculatus	32.0	Lathyrus pratensis	31.0
Scirpus sylvaticus	30.0	Agrostis stolonifera	30.0
Galium uliginosum	28.0	Festuca rubra	28.0
Carex nigra	28.0	Lysimachia vulgaris	27.0
Alopecurus pratensis	27.0	Anthoxanthum odoratum aggr.	26.0
Angelica sylvestris	26.0	Lythrum salicaria	23.0
Myosotis scorpioides	22.0	Carex panicea	21.0
Poa pratensis aggr.	20.0	Lysimachia nummularia	20.0
Calliergonella cuspidata	20.0	Potentilla erecta	19.0
Bistorta officinalis	19.0	Schedonorus pratensis	18.0
Vicia cracca	17.0	Sanguisorba officinalis	17.0
Juncus conglomeratus	17.0	Crepis paludosa	16.0
Cirsium oleraceum	16.0	Ranunculus flammula	15.0
Geum rivale	15.0	Cerastium fontanum subsp. vulgare	15.0
Agrostis canina	14.0	Trifolium repens	13.0
Mentha aquatica	13.0	Epilobium palustre	13.0
Carex acuta	13.0	Valeriana dioica	12.0
Plantago lanceolata	12.0	Juncus articulatus	12.0
Trifolium pratense	11.0	Stellaria graminea	11.0
Ranunculus auricomus aggr.	11.0	Prunella vulgaris	11.0
Molinia caerulea aggr.	11.0	Juncus acutiflorus	11.0
Equisetum fluviatile	11.0	Cirsium rivulare	11.0
Ajuga reptans	11.0		
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Scirpus sylvaticus	10.0	Filipendula ulmaria	10.0
Juncus effusus	9.0		

R36 - [E34b] Moist or wet mesotrophic to eutrophic pasture

*Diagnostic species (phi coefficient * 100)*

Argentina anserina	26.1	Alopecurus geniculatus	23.1
Agrostis stolonifera	21.2	Juncus articulatus	18.9
Juncus inflexus	18.6	Plantago major	17.4

Ranunculus repens	16.6	Rumex crispus	16.2
Juncus compressus	15.1		
<i>Constant species (occurrence frequencies)</i>			
Agrostis stolonifera	65.0	Ranunculus repens	58.0
Trifolium repens	42.0	Argentina anserina	42.0
Plantago major	38.0	Poa trivialis	34.0
Juncus articulatus	34.0	Rumex crispus	27.0
Alopecurus geniculatus	26.0	Juncus effusus	24.0
Lolium perenne	23.0	Holcus lanatus	22.0
Potentilla reptans	20.0	Galium palustre	20.0
Carex hirta	20.0	Juncus inflexus	19.0
Ranunculus flammula	16.0	Glyceria fluitans	16.0
Eleocharis palustris	16.0	Ochlopoa annua	15.0
Taraxacum sect. Taraxacum	14.0	Cardamine pratensis	14.0
Rorippa sylvestris	13.0	Phalaroides arundinacea	13.0
Mentha aquatica	13.0	Lythrum salicaria	13.0
Elytrigia repens	13.0	Schedonorus arundinaceus	12.0
Scorzoneroides autumnalis	11.0	Plantago lanceolata	11.0
Cirsium arvense	11.0		
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Agrostis stolonifera	21.0	Argentina anserina	11.0
Juncus inflexus	7.0	Ranunculus repens	6.0
Alopecurus geniculatus	6.0		

R37 - [E35] Temperate and boreal moist or wet oligotrophic grassland

<i>Diagnostic species (phi coefficient * 100)</i>			
Succisa pratensis	35.8	Carex panicea	31.2
Potentilla erecta	26.4	Molinia caerulea aggr.	25.0
Cirsium dissectum	22.2	Selinum carvifolia	18.6
Sanguisorba officinalis	17.9	Scorzonera humilis	17.6
Carex pulicaris	17.3	Gentiana pneumonanthe	16.2
Galium uliginosum	16.1	Luzula multiflora	15.0
Galium boreale	15.0		
<i>Constant species (occurrence frequencies)</i>			
Potentilla erecta	85.0	Molinia caerulea aggr.	76.0
Carex panicea	68.0	Succisa pratensis	64.0
Anthoxanthum odoratum aggr.	51.0	Holcus lanatus	45.0
Ranunculus acris	39.0	Festuca rubra	38.0
Briza media	36.0	Cirsium palustre	32.0
Galium uliginosum	28.0	Carex nigra	28.0
Sanguisorba officinalis	26.0	Filipendula ulmaria	24.0
Agrostis canina	24.0	Luzula multiflora	23.0
Calliergonella cuspidata	22.0	Rumex acetosa	21.0

Plantago lanceolata	21.0	Lotus pedunculatus	21.0
Deschampsia cespitosa	21.0	Carex flacca	21.0
Prunella vulgaris	20.0	Nardus stricta	20.0
Agrostis capillaris	20.0	Rhytidadelphus squarrosus	19.0
Lysimachia vulgaris	19.0	Danthonia decumbens	19.0
Agrostis stolonifera	19.0	Valeriana dioica	18.0
Juncus conglomeratus	18.0	Equisetum palustre	18.0
Centaurea jacea	18.0	Angelica sylvestris	18.0
Vicia cracca	17.0	Stachys officinalis	17.0
Lotus corniculatus	16.0	Galium boreale	16.0
Carex pallescens	16.0	Carex echinata	16.0
Achillea millefolium aggr.	16.0	Silene flos-cuculi	15.0
Selinum carvifolia	15.0	Lathyrus pratensis	15.0
Juncus effusus	15.0	Serratula tinctoria	14.0
Scorzonera humilis	14.0	Luzula campestris	14.0
Galium palustre	14.0	Cirsium dissectum	14.0
Cardamine pratensis	14.0	Viola palustris	13.0
Phragmites australis	13.0	Lythrum salicaria	13.0
Juncus acutiflorus	13.0	Climacium dendroides	13.0
Carex pulicaris	13.0	Calluna vulgaris	13.0
Trifolium pratense	12.0	Ranunculus flammula	12.0
Pseudoscleropodium purum	12.0	Juncus subnodulosus	12.0
Poa pratensis aggr.	11.0	Mentha aquatica	11.0
Juncus articulatus	11.0	Galium verum	11.0
Festuca ovina	11.0	Carex hostiana	11.0
Aulacomnium palustre	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Molinia caerulea aggr.	45.0	Carex panicea	11.0
Succisa pratensis	6.0		

R41 - [E41] Snow-bed vegetation

*Diagnostic species (phi coefficient * 100)*

Saxifraga oppositifolia	45.0	Salix herbacea	41.6
Hornungia alpina	38.7	Veronica alpina	35.6
Sibbaldia procumbens	34.2	Gnaphalium supinum	33.3
Bistorta vivipara	32.3	Saxifraga androsacea	31.6
Poa alpina	31.5	Silene acaulis	31.2
Ranunculus alpestris	29.4	Salix polaris	29.1
Luzula alpinopilosa	28.5	Oxyria digyna	27.8
Ranunculus glacialis	27.3	Taraxacum sect. Alpina	25.8
Achillea atrata	24.1	Saxifraga cernua	22.8
Saxifraga moschata	22.6	Cerastium cerastoides	22.4
Saxifraga stellaris	22.3	Polytrichastrum alpinum	21.8
Ranunculus crenatus	21.6	Potentilla brauneana	20.6
Arabis alpina	20.6	Polytrichastrum sexangulare	20.3

Carex pyrenaica	19.8	Cardamine alpina	19.7
Minuartia sedoides	19.4	Linaria alpina	19.2
Cerastium uniflorum	19.0	Saxifraga bryoides	18.5
Gnaphalium hoppeanum	18.5	Leucanthemopsis alpina	18.4
Gentiana bavarica	18.0	Cerastium latifolium	17.8
Soldanella pusilla	17.7	Noccaea cepaeifolia	17.7
Anthelia juratzkana	17.7	Moehringia ciliata	17.6
Ligusticum mutellina	17.6	Geum reptans	17.5
Carex atrata	17.5	Alchemilla fissa	17.5
Festuca glacialis	17.4	Carex bigelowii	17.1
Soldanella alpina	16.9	Poa minor	16.9
Poa arctica	16.7	Poa laxa	16.6
Myosotis alpestris	16.6	Ranunculus sulphureus	16.5
Salix retusa	16.3	Luzula confusa	16.3
Doronicum clusii	16.3	Aulacomnium turgidum	16.3
Achillea nana	16.3	Cirsium spinosissimum	16.2
Alopecurus magellanicus	15.7	Thamnolia vermicularis	15.6
Sagina saginoides	15.5	Juncus biglumis	15.5
Primula minima	15.4	Arabis caerulea	15.4
Salix reticulata	15.3	Veronica aphylla	15.2
Saxifraga sedoides	15.1	Alchemilla pentaphyllea	15.1
Trisetum spicatum	15.0		

Constant species (occurrence frequencies)

Bistorta vivipara	41.0	Poa alpina	38.0
Saxifraga oppositifolia	33.0	Salix herbacea	29.0
Silene acaulis	24.0	Hornungia alpina	22.0
Veronica alpina	19.0	Gnaphalium supinum	19.0
Sibbaldia procumbens	17.0	Luzula alpinopilosa	16.0
Ranunculus alpestris	15.0	Saxifraga stellaris	14.0
Salix polaris	13.0	Oxyria digyna	13.0
Ligusticum mutellina	13.0	Soldanella alpina	12.0
Saxifraga androsacea	12.0	Polytrichastrum alpinum	12.0
Cetraria islandica	12.0	Arabis alpina	12.0
Myosotis alpestris	11.0	Deschampsia cespitosa	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

R42 - [E43a] Boreal and arctic acidophilous alpine grassland

*Diagnostic species (phi coefficient * 100)*

Carex bigelowii	59.3	Sibbaldia procumbens	53.1
Bistorta vivipara	51.6	Alchemilla alpina	47.8
Thalictrum alpinum	47.0	Polytrichastrum alpinum	37.2
Salix herbacea	36.8	Cassiope tetragona	36.5
Silene acaulis	34.9	Cerastium alpinum	32.4
Gnaphalium supinum	31.4	Carex rupestris	31.3

Juncus trifidus	30.5	Saxifraga oppositifolia	30.1
Drepanocladus uncinatus	29.5	Saussurea alpina aggr.	29.0
Euphrasia frigida	26.0	Selaginella selaginoides	25.8
Carex brunnescens	25.8	Salix reticulata	25.2
Luzula spicata	25.1	Tofieldia pusilla	25.0
Euphrasia officinalis aggr.	24.7	Festuca vivipara	24.5
Taraxacum croceum	24.1	Oligotrichum hercynicum	23.9
Astragalus alpinus	23.6	Veronica alpina	23.5
Racomitrium lanuginosum	23.5	Pogonatum urnigerum	23.4
Phyllodoce caerulea	22.8	Hypnum hamulosum	21.8
Cassiope hypnoides	21.6	Carex vaginata	21.5
Epilobium anagallidifolium	21.4	Agrostis mertensii	21.2
Nardia scalaris	21.0	Gymnomitrium concinatum	21.0
Alchemilla filicaulis	20.9	Salix polaris	20.5
Pinguicula alpina	20.3	Lycopodium alpinum	19.4
Cetraria islandica	19.2	Antennaria alpina	18.6
Racomitrium fasciculare	18.4	Alchemilla glomerulans	18.4
Ochrolechia frigida	18.2	Potentilla crantzii	18.1
Hypnum callichroum	17.6	Vahlodea atropurpurea	17.5
Rhododendron lapponicum	17.2	Racomitrium canescens	17.1
Huperzia selago	17.1	Lophozia sudetica	16.5
Aulacomnium turgidum	16.5	Thymus praecox	16.4
Hieracium alpinum	16.4	Kiaeria starkei	16.1
Ptilidium ciliare	16.0	Dryas octopetala	15.9
Equisetum scirpoides	15.6	Alectoria nigricans	15.6
Hylocomiastrum pyrenaicum	15.3	Carex lachenalii	15.0
<i>Constant species (occurrence frequencies)</i>			
Bistorta vivipara	72.0	Carex bigelowii	53.0
Anthoxanthum odoratum aggr.	45.0	Alchemilla alpina	39.0
Sibbaldia procumbens	36.0	Avenella flexuosa	36.0
Thalictrum alpinum	34.0	Nardus stricta	32.0
Festuca ovina	29.0	Deschampsia cespitosa	29.0
Agrostis capillaris	29.0	Silene acaulis	28.0
Salix herbacea	26.0	Vaccinium myrtillus	25.0
Selaginella selaginoides	25.0	Polytrichastrum alpinum	25.0
Hylocomium splendens	25.0	Thymus praecox	23.0
Juncus trifidus	23.0	Empetrum nigrum aggr.	23.0
Saxifraga oppositifolia	21.0	Solidago virgaurea	20.0
Ranunculus acris	20.0	Galium saxatile	20.0
Cetraria islandica	20.0	Racomitrium lanuginosum	19.0
Gnaphalium supinum	19.0	Rumex acetosa	18.0
Luzula multiflora	18.0	Saussurea alpina aggr.	17.0
Dicranum scoparium	17.0	Viola palustris	16.0
Rhytidiadelphus squarrosus	16.0	Pleurozium schreberi	16.0
Luzula spicata	16.0	Festuca vivipara	16.0
Drepanocladus uncinatus	16.0	Cerastium alpinum	16.0
Cassiope tetragona	16.0	Campanula rotundifolia	16.0

Viola biflora	15.0	Vaccinium vitis-idaea	15.0
Huperzia selago	15.0	Euphrasia officinalis aggr.	15.0
Carex rupestris	15.0	Salix reticulata	14.0
Potentilla erecta	14.0	Tofieldia pusilla	13.0
Rhytidadelphus loreus	13.0	Ptilidium ciliare	13.0
Festuca rubra	13.0	Cladonia uncialis	13.0
Armeria maritima	13.0	Antennaria dioica	13.0
Agrostis canina	13.0	Veronica alpina	12.0
Trollius europaeus	12.0	Trientalis europaea	12.0
Racomitrium canescens	12.0	Potentilla crantzii	12.0
Dryas octopetala	12.0	Vaccinium uliginosum	11.0
Poa alpina	11.0	Pinguicula alpina	11.0
Euphrasia frigida	11.0	Carex vaginata	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Nardus stricta	8.0	Racomitrium lanuginosum	6.0
Festuca ovina	5.0		

R43 - [E43b] Temperate acidophilous alpine grassland

*Diagnostic species (phi coefficient * 100)*

Agrostis rupestris	41.0	Geum montanum	40.9
Helictochloa versicolor	37.8	Potentilla aurea	37.1
Trifolium alpinum	36.8	Carex curvula	36.6
Phyteuma hemisphaericum	31.9	Festuca airoides	31.2
Juncus trifidus	30.0	Luzula spicata	29.3
Euphrasia minima	27.5	Leucanthemopsis alpina	26.7
Oreochloa disticha	26.4	Ligusticum mutellina	26.1
Primula minima	25.5	Scorzoneroides helvetica	25.3
Veronica bellidioides	25.2	Hieracium alpinum	25.1
Bellardiochloa variegata	24.8	Poa alpina	23.8
Carex sempervirens	23.2	Minuartia sedoides	23.1
Gentiana acaulis	23.1	Gnaphalium supinum	22.9
Scorzoneroides pyrenaica	22.7	Nardus stricta	22.0
Campanula scheuchzeri	21.6	Campanula alpina	21.2
Festuca halleri	20.9	Pulsatilla alpina	20.2
Ranunculus pyrenaicus	20.0	Homogyne alpina	20.0
Festuca eskia	19.8	Hieracium piliferum	19.6
Luzula lutea	19.0	Silene acaulis	18.8
Gentiana alpina	18.6	Sempervivum montanum	18.5
Minuartia recurva	18.4	Soldanella pusilla	17.8
Ligusticum mutellinoides	17.3	Pulsatilla vernalis	17.2
Plantago alpina	17.1	Phyteuma globulariifolium	16.9
Erigeron uniflorus	16.4	Luzula pediformis	16.2
Jacobaea carniolica	15.7	Campanula barbata	15.7
Lotus alpinus	15.5	Antennaria carpatica	15.3
Sedum alpestre	15.0	Gentiana punctata	15.0

Constant species (occurrence frequencies)

Nardus stricta	45.0	Potentilla aurea	35.0
Geum montanum	34.0	Anthoxanthum odoratum aggr.	33.0
Agrostis rupestris	28.0	Vaccinium myrtillus	27.0
Poa alpina	27.0	Homogyne alpina	26.0
Helictochloa versicolor	26.0	Carex sempervirens	25.0
Avenella flexuosa	25.0	Trifolium alpinum	22.0
Campanula scheuchzeri	22.0	Juncus trifidus	21.0
Ligusticum mutellina	20.0	Carex curvula	19.0
Phyteuma hemisphaericum	17.0	Luzula spicata	17.0
Festuca airoides	17.0	Bistorta vivipara	17.0
Vaccinium vitis-idaea	16.0	Vaccinium uliginosum	16.0
Euphrasia minima	16.0	Scorzoneroides helvetica	14.0
Pulsatilla alpina	14.0	Gentiana acaulis	14.0
Festuca rubra	14.0	Antennaria dioica	14.0
Silene acaulis	13.0	Lotus corniculatus	13.0
Leucanthemopsis alpina	13.0	Festuca nigrescens	13.0
Trifolium pratense	12.0	Scorzoneroides pyrenaica	12.0
Primula minima	12.0	Gnaphalium supinum	12.0
Calluna vulgaris	12.0	Bellardiochloa variegata	12.0
Potentilla erecta	11.0	Phleum alpinum aggr.	11.0
Oreochloa disticha	11.0	Hieracium alpinum	11.0
Cetraria islandica	11.0	Arnica montana	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Nardus stricta	19.0	Carex curvula	12.0
Trifolium alpinum	6.0	Festuca eskia	6.0
Bellardiochloa variegata	5.0		

R44 - [E44a] Arctic-alpine calcareous grassland

*Diagnostic species (phi coefficient * 100)*

Carex sempervirens	39.3	Dryas octopetala	32.5
Helianthemum alpestre	30.2	Saxifraga paniculata	30.0
Sesleria caerulea	29.5	Hieracium villosum	27.6
Bellidiastrum michelii	26.0	Carex firma	25.9
Phyteuma orbiculare	25.4	Scabiosa lucida	25.2
Sesleria coerulans	24.9	Gentiana verna	24.9
Gentiana clusii	24.6	Galium anisophyllum	24.5
Thesium alpinum	24.0	Draba aizoides	23.5
Carduus defloratus aggr.	23.5	Primula auricula	23.4
Silene acaulis	22.3	Euphrasia salisburgensis	22.2
Aster alpinus	22.2	Saxifraga caesia	21.7
Globularia cordifolia	21.7	Festuca versicolor	21.3
Bistorta vivipara	20.7	Campanula cochlearifolia	20.6
Leontopodium nivale	20.0	Carex mucronata	19.6

Kernera saxatilis	18.9	Anthyllis vulneraria	18.8
Oxytropis campestris	18.7	Helictotrichon sedenense	18.6
Biscutella laevigata	18.5	Helianthemum nummularium	18.3
Androsace chamaejasme	18.0	Festuca quadriflora	17.8
Trisetum alpestre	17.5	Minuartia verna	17.2
Athamanta cretensis	17.2	Poa alpina	17.0
Kobresia myosuroides	16.8	Pedicularis rostratocapitata	16.7
Globularia nudicaulis	16.7	Thymus pulcherrimus	16.6
Saxifraga oppositifolia	16.6	Hedysarum hedysaroides	16.5
Bartsia alpina	16.5	Alchemilla conjuncta aggr.	16.5
Crepis jacquinii	16.0	Gypsophila repens	15.9
Carex ferruginea	15.9	Carex rupestris	15.8
Potentilla crantzii	15.5	Pedicularis verticillata	15.5
Achillea clavennae	15.5	Agrostis alpina	15.4
Carex ornithopoda	15.3		
<i>Constant species (occurrence frequencies)</i>			
Carex sempervirens	44.0	Sesleria caerulea	40.0
Helianthemum nummularium	32.0	Anthyllis vulneraria	32.0
Phyteuma orbiculare	26.0	Lotus corniculatus	25.0
Dryas octopetala	25.0	Bistorta vivipara	25.0
Bellidiastrum michelii	25.0	Carduus defloratus aggr.	23.0
Sesleria coerulans	21.0	Saxifraga paniculata	21.0
Scabiosa lucida	20.0	Galium anisophyllum	20.0
Poa alpina	19.0	Gentiana verna	18.0
Thesium alpinum	17.0	Hippocrepis comosa	17.0
Helianthemum alpestre	17.0	Carlina acaulis	17.0
Silene acaulis	16.0	Globularia cordifolia	15.0
Tortella tortuosa	14.0	Linum catharticum	14.0
Campanula cochlearifolia	14.0	Thymus praecox	13.0
Leucanthemum vulgare aggr.	13.0	Hieracium villosum	13.0
Galium pumilum	13.0	Euphrasia salisburgensis	13.0
Carex firma	13.0	Biscutella laevigata	13.0
Bartsia alpina	13.0	Minuartia verna	12.0
Trifolium pratense	11.0	Primula auricula	11.0
Potentilla erecta	11.0	Leontodon hispidus	11.0
Gentiana clusii	11.0	Draba aizoides	11.0
Clinopodium alpinum	11.0	Campanula rotundifolia	11.0
Briza media	11.0	Aster alpinus	11.0
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Carex sempervirens	13.0	Sesleria caerulea	8.0

R45 - [E44b] Alpine and subalpine calcareous grassland of the Balkans and Apennines

*Diagnostic species (phi coefficient * 100)*

Carex kitaibeliana	66.8	Asyneuma limonifolium	51.3
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<i>Sesleria nitida</i>	44.5	<i>Koeleria lobata</i>	41.1
<i>Edraianthus graminifolius</i>	39.3	<i>Minuartia verna</i>	39.0
<i>Trinia dalechampii</i>	38.6	<i>Armeria canescens</i>	37.8
<i>Brachypodium genuense</i>	34.7	<i>Asperula aristata</i>	34.3
<i>Carex macrolepis</i>	34.1	<i>Leontodon crispus</i>	32.6
<i>Achillea ageratifolia</i>	32.1	<i>Sesleria juncifolia</i>	30.5
<i>Globularia meridionalis</i>	30.4	<i>Viola eugeniae</i>	30.1
<i>Anthyllis aurea</i>	30.1	<i>Potentilla rigoana</i>	30.0
<i>Clinopodium alpinum</i>	29.9	<i>Cerastium decalvans</i>	29.9
<i>Helianthemum canum</i>	29.2	<i>Dianthus sylvestris</i>	27.8
<i>Draba lasiocarpa</i>	27.5	<i>Koeleria splendens</i>	26.2
<i>Asperula purpurea</i>	26.1	<i>Festuca circummediterranea</i>	26.0
<i>Dianthus haematocalyx</i>	25.9	<i>Astragalus angustifolius</i>	25.8
<i>Festuca hirtovaginata</i>	25.3	<i>Cyanus triumfettii</i>	24.9
<i>Anthyllis vulneraria</i>	24.5	<i>Stipa pulcherrima</i>	24.0
<i>Paronychia macedonica</i>	23.2	<i>Euphorbia myrsinites</i>	23.2
<i>Cerastium tomentosum</i>	23.2	<i>Helictochloa versicolor</i>	23.0
<i>Thymus leucotrichus</i>	22.8	<i>Poa molinerii</i>	22.7
<i>Eryngium amethystinum</i>	22.5	<i>Teucrium montanum</i>	22.3
<i>Jurinea arachnoidea</i>	22.1	<i>Festuca varia</i>	22.1
<i>Hypericum rumeliacum</i>	21.9	<i>Viola herzogii</i>	21.6
<i>Pedicularis elegans</i>	21.6	<i>Erysimum pseudorhaeticum</i>	21.6
<i>Cerastium candidissimum</i>	21.5	<i>Galium oreophilum</i>	21.3
<i>Saxifraga sempervivum</i>	20.9	<i>Gentiana verna</i>	20.6
<i>Silene radicata</i>	20.4	<i>Ranunculus pollinensis</i>	20.2
<i>Galium verticillatum</i>	20.1	<i>Galium magellense</i>	20.0
<i>Thymus longicaulis</i>	19.7	<i>Sedum ochroleucum</i>	19.5
<i>Thymus ciliatopubescens</i>	19.4	<i>Linum capitatum</i>	19.4
<i>Inula aschersoniana</i>	19.1	<i>Erigeron epiroticus</i>	18.9
<i>Hieracium pannosum</i>	18.6	<i>Plantago atrata</i>	18.5
<i>Dianthus petraeus</i>	18.3	<i>Matthiola fruticulosa</i>	18.2
<i>Ornithogalum comosum</i>	18.0	<i>Paronychia chionaea</i>	17.8
<i>Trifolium heldreichianum</i>	17.7	<i>Sedum urvillei</i>	17.7
<i>Centaurea grbavacensis</i>	17.7	<i>Astragalus sericophyllus</i>	17.7
<i>Stachys iva</i>	17.6	<i>Rumex nebroides</i>	17.6
<i>Cerastium arvense</i>	17.5	<i>Trinia glauca</i>	17.3
<i>Eryngium wiegandii</i>	17.3	<i>Knautia purpurea</i>	17.2
<i>Sesleria tenerrima</i>	17.0	<i>Festuca laevigata</i>	17.0
<i>Alyssum stribnyi</i>	17.0	<i>Sesleria vaginalis</i>	16.9
<i>Polygala major</i>	16.9	<i>Thesium macedonicum</i>	16.8
<i>Saponaria bellidifolia</i>	16.8	<i>Helianthemum alpestre</i>	16.8
<i>Scabiosa triniifolia</i>	16.7	<i>Potentilla astracana</i>	16.7
<i>Odontarrhena corymbosoidea</i>	16.7	<i>Laserpitium siler</i>	16.7
<i>Galium lucidum</i>	16.7	<i>Festuca panciciana</i>	16.6
<i>Daphne oleoides</i>	16.6	<i>Salvia ringens</i>	16.5
<i>Festuca violacea</i>	16.5	<i>Saxifraga marginata</i>	16.2
<i>Phleum ambiguum</i>	16.1	<i>Gentiana dinarica</i>	16.1
<i>Carum graecum</i>	16.1	<i>Poa thessala</i>	16.0

Alyssum montanum	16.0	Draba aizoides	15.7
Tragopogon pterodes	15.6	Helianthemum marmoreum	15.4
Euphorbia barrelieri	15.4	Asperula boissieri	15.4
Achillea virescens	15.4	Thymus perinicus	15.3
Helianthemum nummularium	15.3	Marrubium thessalum	15.2
Bromopsis cappadocica	15.2	Minuartia glomerata	15.1
<i>Constant species (occurrence frequencies)</i>			
Carex kitaibeliana	49.0	Anthyllis vulneraria	42.0
Minuartia verna	32.0	Asyneuma limonifolium	30.0
Clinopodium alpinum	28.0	Helianthemum nummularium	27.0
Leontodon crispus	26.0	Teucrium montanum	25.0
Koeleria lobata	25.0	Helianthemum canum	25.0
Bromopsis erecta	23.0	Asperula aristata	23.0
Sesleria nitida	22.0	Cerastium arvense	21.0
Dianthus sylvestris	20.0	Asperula cynanchica	20.0
Armeria canescens	20.0	Thymus praecox	19.0
Edraianthus graminifolius	18.0	Trinia dalechampii	16.0
Teucrium chamaedrys	16.0	Poa alpina	16.0
Helictochloa versicolor	16.0	Gentiana verna	16.0
Brachypodium genuense	16.0	Asperula purpurea	16.0
Pilosella officinarum	15.0	Hippocrepis comosa	15.0
Galium lucidum	15.0	Carex macrolepis	15.0
Lotus corniculatus	14.0	Festuca circummediterranea	14.0
Cyanus triumfettii	14.0	Thymus longicaulis	13.0
Sesleria juncifolia	13.0	Koeleria splendens	13.0
Stipa pulcherrima	12.0	Globularia meridionalis	12.0
Eryngium amethystinum	12.0	Viola eugeniae	11.0
Teucrium polium aggr.	11.0	Sedum rupestre	11.0
Potentilla rigoana	11.0	Melica ciliata	11.0
Hypericum rumeliacum	11.0	Fumana procumbens	11.0
Euphorbia myrsinites	11.0	Achillea ageratifolia	11.0
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Sesleria nitida	13.0	Carex kitaibeliana	10.0
Sesleria juncifolia	7.0		

R51 - [E52a] Thermophilous forest fringe of base-rich soils

<i>Diagnostic species (phi coefficient * 100)</i>			
Geranium sanguineum	34.7	Trifolium medium	29.2
Origanum vulgare	24.8	Peucedanum cervaria	19.6
Vincetoxicum hirundinaria	17.7	Polygonatum odoratum	17.0
Bupleurum falcatum	16.4	Euphorbia cyparissias	15.2
<i>Constant species (occurrence frequencies)</i>			
Achillea millefolium aggr.	40.0	Dactylis glomerata	38.0

Trifolium medium	36.0	Geranium sanguineum	36.0
Origanum vulgare	34.0	Galium mollugo aggr.	34.0
Euphorbia cyparissias	34.0	Poa pratensis aggr.	33.0
Hypericum perforatum	29.0	Vincetoxicum hirundinaria	26.0
Galium verum	24.0	Clinopodium vulgare	24.0
Arrhenatherum elatius	24.0	Pimpinella saxifraga	23.0
Fragaria vesca	23.0	Festuca rubra	22.0
Brachypodium pinnatum	22.0	Polygonatum odoratum	21.0
Veronica chamaedrys	20.0	Lotus corniculatus	20.0
Helianthemum nummularium	19.0	Agrostis capillaris	19.0
Knautia arvensis	18.0	Viola hirta	17.0
Teucrium chamaedrys	17.0	Centaurea scabiosa	17.0
Agrimonia eupatoria	17.0	Vicia cracca	16.0
Silene nutans	15.0	Poa nemoralis	15.0
Peucedanum cervaria	15.0	Centaurea jacea	15.0
Tanacetum corymbosum	14.0	Lathyrus pratensis	14.0
Bupleurum falcatum	14.0	Stachys officinalis	13.0
Securigera varia	13.0	Plantago lanceolata	13.0
Fragaria viridis	13.0	Astragalus glycyphyllos	13.0
Stachys recta	12.0	Sanguisorba minor	12.0
Primula veris	12.0	Leucanthemum vulgare aggr.	12.0
Laserpitium latifolium	12.0	Filipendula vulgaris	12.0
Festuca ovina	12.0	Briza media	12.0
Solidago virgaurea	11.0	Silene vulgaris	11.0
Campanula persicifolia	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Trifolium medium	24.0	Geranium sanguineum	21.0
Vincetoxicum hirundinaria	8.0	Peucedanum cervaria	7.0
Origanum vulgare	5.0		

R52 - [E52b] Forest fringe of acidic nutrient-poor soils

*Diagnostic species (phi coefficient * 100)*

Holcus mollis	36.1	Teucrium scorodonia	33.0
Hieracium laevigatum	20.8	Melampyrum pratense	15.7
Agrostis capillaris	15.4		

Constant species (occurrence frequencies)

Holcus mollis	70.0	Teucrium scorodonia	64.0
Agrostis capillaris	55.0	Avenella flexuosa	39.0
Melampyrum pratense	36.0	Lonicera periclymenum	26.0
Solidago virgaurea	23.0	Anthoxanthum odoratum aggr.	23.0
Festuca rubra	22.0	Stellaria holostea	20.0
Achillea millefolium aggr.	20.0	Veronica officinalis	18.0
Quercus petraea	18.0	Potentilla erecta	18.0
Fragaria vesca	18.0	Calluna vulgaris	18.0

Vaccinium myrtillus	17.0	Viola riviniana	16.0
Galium saxatile	16.0	Dactylis glomerata	16.0
Veronica chamaedrys	14.0	Hieracium laevigatum	14.0
Galium mollugo aggr.	14.0	Rumex acetosella	13.0
Cytisus scoparius	13.0	Campanula rotundifolia	13.0
Rubus fruticosus aggr.	12.0	Poa nemoralis	12.0
Luzula luzuloides	12.0	Hypericum perforatum	12.0
Hedera helix	12.0	Carex pilulifera	12.0
Sorbus aucuparia	11.0	Rumex acetosa	11.0
Pseudoscleropodium purum	11.0	Lathyrus linifolius	11.0
Hypericum pulchrum	11.0	Hieracium lachenalii	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Teucrium scorodonia	32.0	Holcus mollis	31.0
Melampyrum pratense	15.0	Avenella flexuosa	6.0
Agrostis capillaris	5.0		

R53 - [E52c] Macaronesian thermophilous forest fringe

*Diagnostic species (phi coefficient * 100)*

Ranunculus cortusifolius	75.5	Carlina salicifolia	50.3
Andryala pinnatifida	50.0	Rumex maderensis	45.5
Polypodium cambricum subsp. macaronesicum	45.1	Phyllis nobla	44.8
Monanthes laxiflora	39.5	Pericallis aurita	39.4
Davallia canariensis	37.6	Thymus origanoides	32.3
Pimpinella dendrotragium	32.3	Pericallis cruenta	32.2
Helichrysum gossypinum	32.2	Genista maderensis	32.2
Festuca agustinii	32.2	Ferula lancerotensis	32.2
Athamanta cervariifolia	32.2	Aichryson tortuosum	32.2
Argyranthemum webbii	32.1	Aeonium lancerottense	32.1
Aeonium canariense	32.1	Pericallis lanata	32.0
Habenaria tridactylites	32.0	Aichryson laxum	31.9
Echium virescens	31.8	Sonchus acaulis	31.4
Erysimum scoparium	31.4	Ageratina adenophora	30.0
Euphorbia regis-jubae	28.2	Allium roseum	27.0
Senecio bollei	22.8	Scrophularia smithii	22.8
Reichardia famarae	22.8	Plantago malato-belizii	22.8
Peucedanum lowei	22.8	Pericallis malvifolia	22.8
Orchis patens subsp. canariensis	22.8	Monanthes muralis	22.8
Minuartia platyphylla	22.8	Lolium saxatile	22.8
Helianthemum broussonetii	22.8	Geranium palmatum	22.8
Echium handiense	22.8	Dactylorhiza foliosa	22.8
Crambe scaberrima	22.8	Cardamine caldeiranum	22.8
Bystropogon punctatus	22.8	Asteriscus intermedius	22.8
Angelica lignescens	22.8	Ammi huntii	22.8
Aichryson pachycaulon	22.8	Aichryson divaricatum	22.8

Aeonium cuneatum	22.8	Aeonium aizoon	22.8
Sonchus gummifer	22.7	Sideritis dasygnaphala	22.7
Selaginella kraussiana	22.7	Hypericum coadunatum	22.7
Erica maderensis	22.7	Lavandula pinnata	22.6
Crepis canariensis	22.6	Aeonium diplocyclum	22.6
Sonchus hierrensis	22.5	Sideritis candicans	22.5
Sibthorpia peregrina	22.5	Pericallis webbii	22.5
Oenanthe divaricata	22.5	Geranium reuteri	22.5
Genista tenera	22.5	Festuca petraea	22.5
Dryopteris intermedia	22.5	Drymochloa donax	22.5
Deschampsia argentea	22.5	Crepis vesicaria subsp. andryaloides	22.5
Bupleurum salicifolium	22.5	Tolpis macrorhiza	22.4
Tolpis azorica	22.4	Selaginella denticulata	22.4
Rubus bollei	22.4	Hypericum reflexum	22.3
Erysimum bicolor	22.3	Cyrtomium falcatum	22.3
Cedronella canariensis	22.3	Adiantum reniforme	22.3
Cyclosorus pozoi	22.2	Helichrysum melaleucum	22.1
Genista microphylla	22.1	Argyranthemum adauctum	22.1
Salvia canariensis	22.0	Salix canariensis	21.9
Micromeria benthamii	21.9	Holcus rigidus	21.9
Cystopteris fragilis subsp. diaphana	21.9	Adenocarpus foliolosus	21.9
Hypericum grandifolium	21.7	Ferula linkii	21.7
Petroselinum crispum	21.6	Scrophularia glabrata	21.5
Allosorus pteridioides	21.5	Lobularia canariensis	21.4
Plantago arborescens	21.3	Aeonium glandulosum	21.3
Micromeria varia	20.4	Cistus symphytifolius	20.3
Ceratochloa cathartica	19.3	Morella faya	18.9
Euphorbia balsamifera	18.9	Sibthorpia europaea	18.3
Mentha spicata	16.5	Adiantum capillus-veneris	16.4
<i>Constant species (occurrence frequencies)</i>			
Ranunculus cortusifolius	58.0	Carlina salicifolia	26.0
Andryala pinnatifida	26.0	Rumex maderensis	21.0
Polypodium cambricum subsp. macaronesicum	21.0	Phyllis nobla	21.0
Pericallis aurita	16.0	Monanthes laxiflora	16.0
Davallia canariensis	16.0	Thymus organoides	11.0
Succisa pratensis	11.0	Sonchus acaulis	11.0
Selaginella denticulata	11.0	Pimpinella dendrotrragium	11.0
Pericallis lanata	11.0	Pericallis cruenta	11.0
Juncus effusus	11.0	Helichrysum gossypinum	11.0
Habenaria tridactylites	11.0	Genista maderensis	11.0
Festuca agustinii	11.0	Ferula lancerotensis	11.0
Euphorbia regis-jubae	11.0	Erysimum scoparium	11.0
Echium virescens	11.0	Brachypodium sylvaticum	11.0
Athamanta cervariifolia	11.0	Argyranthemum webbii	11.0
Allium roseum	11.0	Aichryson tortuosum	11.0
Aichryson laxum	11.0	Ageratina adenophora	11.0

Aeonium lancerottense	11.0	Aeonium canariense	11.0
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Dominant species (percentage frequencies of occurrences with cover > 25%)

Polypodium cambricum subsp. macaronesicum	11.0	Salix canariensis	5.0
Rumex maderensis	5.0	Pimpinella dendrotragium	5.0
Pericallis malvifolia	5.0	Monanthes laxiflora	5.0
Lolium saxatile	5.0	Hypericum coadunatum	5.0
Helichrysum gossypinum	5.0	Hedera helix	5.0
Geranium reuteri	5.0	Geranium palmatum	5.0
Genista maderensis	5.0	Ferula lancerotensis	5.0
Echium handiense	5.0	Deschampsia argentea	5.0
Dactylorhiza foliosa	5.0	Angelica lignescens	5.0
Aeonium lancerottense	5.0	Aeonium cuneatum	5.0
Aeonium aizoon	5.0	Adenocarpus foliolosus	5.0

R54 - [E53] Pteridium aquilinum vegetation

*Diagnostic species (phi coefficient * 100)*

Pteridium aquilinum	37.2
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Constant species (occurrence frequencies)

Pteridium aquilinum	100.0	Agrostis capillaris	35.0
Potentilla erecta	32.0	Anthoxanthum odoratum aggr.	31.0
Plantago lanceolata	26.0	Dactylis glomerata	25.0
Achillea millefolium aggr.	24.0	Lotus corniculatus	23.0
Holcus lanatus	23.0	Festuca rubra	23.0
Trifolium repens	18.0	Calluna vulgaris	18.0
Trifolium pratense	17.0	Hypochaeris radicata	16.0
Rumex acetosa	15.0	Avenella flexuosa	15.0
Teucrium scorodonia	14.0	Prunella vulgaris	14.0
Molinia caerulea aggr.	14.0	Veronica chamaedrys	13.0
Danthonia decumbens	13.0	Briza media	13.0
Leucanthemum vulgare aggr.	12.0	Galium verum	12.0
Brachypodium pinnatum	12.0	Vaccinium myrtillus	11.0
Stachys officinalis	11.0	Poa pratensis aggr.	11.0
Pilosella officinarum	11.0	Luzula campestris	11.0
Galium saxatile	11.0	Festuca ovina	11.0
Cerastium fontanum subsp. vulgare	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Pteridium aquilinum	20.0	Agrostis capillaris	7.0
Molinia caerulea aggr.	6.0		

R55 - [E54] Lowland moist or wet tall-herb and fern fringe

*Diagnostic species (phi coefficient * 100)*

Urtica dioica	16.4	Petasites hybridus	16.4
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Constant species (occurrence frequencies)

Urtica dioica	58.0	Poa trivialis	31.0
Galium aparine	28.0	Ranunculus repens	25.0
Filipendula ulmaria	25.0	Calystegia sepium	23.0
Phalaroides arundinacea	21.0	Dactylis glomerata	21.0
Glechoma hederacea	19.0	Aegopodium podagraria	19.0
Angelica sylvestris	18.0	Agrostis stolonifera	17.0
Heracleum sphondylium	16.0	Lythrum salicaria	15.0
Geranium robertianum	15.0	Chaerophyllum hirsutum	14.0
Epilobium hirsutum	13.0	Cirsium arvense	13.0
Anthriscus sylvestris	13.0	Phragmites australis	12.0
Eupatorium cannabinum	12.0	Elytrigia repens	12.0
Cirsium oleraceum	12.0	Taraxacum sect. Taraxacum	11.0
Symphytum officinale	11.0	Petasites hybridus	11.0
Mentha longifolia	11.0	Lysimachia vulgaris	11.0
Lycopus europaeus	11.0	Impatiens noli-tangere	11.0
Deschampsia cespitosa	11.0	Caltha palustris	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Urtica dioica	13.0	Petasites hybridus	9.0
Filipendula ulmaria	7.0		

R56 - [E55] Montane to subalpine moist or wet tall-herb and fern fringe

*Diagnostic species (phi coefficient * 100)*

Rumex arifolius	50.0	Adenostyles alliariae	48.4
Rumex alpinus	45.5	Peucedanum ostruthium	42.1
Aconitum napellus	33.8	Saxifraga rotundifolia	32.9
Epilobium alpestre	31.3	Geranium sylvaticum aggr.	30.8
Veratrum album	29.8	Viola biflora	29.3
Athyrium distentifolium	29.0	Ranunculus platanifolius	25.9
Chaerophyllum hirsutum	25.8	Lactuca alpina	24.8
Doronicum austriacum	24.5	Aconitum lycoctonum	22.6
Stellaria nemorum	21.1	Thalictrum aquilegifolium	20.3
Jacobaea alpina	19.5	Tozzia alpina	19.2
Ranunculus aconitifolius	18.9	Jacobaea subalpina	18.7
Ligusticum mutellina	18.6	Silene dioica	18.5
Phleum alpinum aggr.	17.4	Aconitum tauricum	17.0
Luzula glabrata	16.1	Myosotis alpestris	15.9
Carduus personata	15.9	Poa hybrida	15.5
Luzula alpinopilosa	15.5	Rhodiola rosea	15.4
Poa alpina	15.4		

Constant species (occurrence frequencies)

Adenostyles alliariae	49.0	Rumex arifolius	48.0
Geranium sylvaticum aggr.	45.0	Chaerophyllum hirsutum	36.0
Veratrum album	32.0	Deschampsia cespitosa	32.0
Viola biflora	31.0	Stellaria nemorum	30.0
Rumex alpinus	30.0	Peucedanum ostruthium	29.0
Saxifraga rotundifolia	28.0	Silene dioica	24.0
Senecio nemorensis aggr.	23.0	Aconitum napellus	22.0
Urtica dioica	21.0	Hypericum maculatum	20.0
Heracleum sphondylium	19.0	Athyrium distentifolium	19.0
Alchemilla vulgaris aggr.	19.0	Aconitum lycoctonum	19.0
Poa alpina	18.0	Ranunculus platanifolius	17.0
Athyrium filix-femina	17.0	Thalictrum aquilegifolium	16.0
Rubus idaeus	16.0	Lactuca alpina	16.0
Solidago virgaurea	15.0	Oxalis acetosella	15.0
Epilobium alpestre	15.0	Doronicum austriacum	15.0
Primula elatior	14.0	Phleum alpinum aggr.	14.0
Luzula sylvatica	14.0	Ligusticum mutellina	14.0
Geum rivale	14.0	Ranunculus aconitifolius	13.0
Milium effusum	13.0	Dactylis glomerata	13.0
Bistorta officinalis	13.0	Silene vulgaris	12.0
Homogyne alpina	12.0	Vaccinium myrtillus	11.0
Myosotis sylvatica	11.0	Myosotis alpestris	11.0
Chrysosplenium alternifolium	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Adenostyles alliariae	19.0	Rumex alpinus	14.0
Peucedanum ostruthium	8.0		

R57 - [E56] Herbaceous forest clearing vegetation

*Diagnostic species (phi coefficient * 100)*

Senecio sylvaticus	27.6	Epilobium angustifolium	26.7
Sambucus ebulus	21.6	Digitalis purpurea	15.7

Constant species (occurrence frequencies)

Urtica dioica	47.0	Epilobium angustifolium	44.0
Rubus idaeus	39.0	Avenella flexuosa	35.0
Senecio nemorensis aggr.	25.0	Galium aparine	25.0
Galeopsis tetrahit	23.0	Fragaria vesca	23.0
Agrostis capillaris	22.0	Calamagrostis epigejos	21.0
Rubus fruticosus aggr.	20.0	Sorbus aucuparia	19.0
Geranium robertianum	19.0	Betula pendula	18.0
Senecio sylvaticus	17.0	Vaccinium myrtillus	16.0
Rumex acetosella	16.0	Lactuca muralis	16.0
Digitalis purpurea	16.0	Poa nemoralis	14.0
Picea abies	14.0	Holcus mollis	14.0
Epilobium montanum	14.0	Sambucus ebulus	13.0

Dactylis glomerata	13.0	Athyrium filix-femina	13.0
Luzula luzuloides	12.0	Veronica officinalis	11.0
Salix caprea	11.0	Oxalis acetosella	11.0
Hypericum perforatum	11.0	Glechoma hederacea	11.0
Geum urbanum	11.0	Fagus sylvatica	11.0
Cirsium arvense	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Sambucus ebulus	12.0	Epilobium angustifolium	11.0
Calamagrostis epigejos	7.0	Avenella flexuosa	6.0
Urtica dioica	5.0		

R61 - [E61] Mediterranean inland salt steppe

*Diagnostic species (phi coefficient * 100)*

Suaeda vera	58.8	Limonium delicatulum	41.3
Sphenopus divaricatus	39.2	Frankenia pulverulenta	38.8
Puccinellia caespitosa	33.6	Spergularia diandra	33.1
Lygeum spartum	32.1	Limonium supinum	31.7
Limonium caesium	30.9	Limonium angustebracteatum	30.0
Hordeum marinum	29.2	Elytrigia curvifolia	28.2
Arthrocnemum macrostachyum	27.3	Mesembryanthemum nodiflorum	26.8
Artemisia herba-alba	26.3	Aeluropus litoralis	25.6
Hornungia procumbens	25.4	Bupleurum semicompositum	24.9
Puccinellia fasciculata	24.3	Hypericum atomarium	23.9
Sonchus crassifolius	23.1	Frankenia thymifolia	22.8
Limonium cossonianum	22.6	Aethionema froedinii	21.5
Parapholis incurva	21.4	Limonium costae	21.3
Limonium dichotomum	21.2	Limonium latebracteatum	20.9
Atriplex halimus	20.6	Suaeda spicata	18.4
Limbaria crithmoides	18.3	Jacobaea auricula	18.1
Spergularia marina	18.0	Geranium collinum	17.2
Alyssum praecox	17.2	Arenaria cariensis	16.7
Hesperis bottae	16.6	Atriplex glauca	16.4
Aethionema heterocarpum	16.4	Limonium tournefortii	16.2
Lepidium cardamines	16.2	Plantago coronopus aggr.	16.1
Hypericum thymifolium	15.9	Gypsophila graminifolia	15.8
Frankenia corymbosa	15.8	Limonium viciosoi	15.7
Bassia hirsuta	15.7	Adonis ericalcyna	15.3
Salicornia patula	15.1		

Constant species (occurrence frequencies)

Suaeda vera	41.0	Limonium delicatulum	18.0
Sphenopus divaricatus	17.0	Frankenia pulverulenta	17.0
Plantago coronopus aggr.	16.0	Lygeum spartum	14.0
Hordeum marinum	13.0	Spergularia diandra	12.0
Puccinellia caespitosa	12.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Frankenia pulverulenta	7.0	Lygeum spartum	6.0
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R62 - [E62] Continental inland salt steppe

*Diagnostic species (phi coefficient * 100)*

Artemisia santonicum	58.5	Camphorosma annua	48.2
Limonium gmelinii	47.1	Puccinellia distans	42.9
Podospermum canum	41.1	Plantago tenuiflora	33.3
Eremopyrum triticeum	31.4	Eremopyrum orientale	28.8
Bassia sedoides	28.2	Trifolium angulatum	27.4
Cerastium dubium	26.6	Puccinellia tenuissima	26.1
Pholiurus pannonicus	24.8	Camphorosma monspeliaca	23.9
Suaeda corniculata	23.4	Petrosimonia oppositifolia	23.4
Trifolium retusum	22.4	Lepidium perfoliatum	22.4
Atriplex intracontinentalis	21.5	Festuca valesiaca	20.6
Lepidium ruderales	19.3	Artemisia pauciflora	19.3
Hordeum geniculatum	18.6	Suaeda acuminata	18.5
Salicornia perennans	18.2	Lepidium cartilagineum	18.0
Bupleurum tenuissimum	17.9	Petrosimonia triandra	17.8
Atriplex aucheri	17.7	Chorispora tenella	17.6
Camphorosma songorica	17.5	Limonium meyeri	17.1
Alhagi maurorum	16.9	Petrosimonia brachiata	16.8
Plantago schwarzenbergiana	16.6	Carex stenophylla	16.6
Atriplex tatarica	16.4	Atriplex patens	16.1
Ranunculus pedatus	15.8	Puccinellia dolicholepis	15.7
Suaeda maritima	15.3	Plantago maritima	15.3

Constant species (occurrence frequencies)

Artemisia santonicum	45.0	Puccinellia distans	32.0
Festuca valesiaca	29.0	Limonium gmelinii	28.0
Camphorosma annua	25.0	Podospermum canum	24.0
Poa bulbosa	19.0	Plantago maritima	15.0
Matricaria chamomilla	14.0	Tripolium pannonicum	12.0
Plantago tenuiflora	12.0	Eremopyrum triticeum	12.0
Elytrigia repens	12.0	Polygonum aviculare	11.0
Cynodon dactylon	11.0	Cerastium dubium	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Artemisia santonicum	14.0	Camphorosma annua	11.0
Puccinellia distans	9.0		

R63 - [E63] Temperate inland salt marsh

*Diagnostic species (phi coefficient * 100)*

Puccinellia distans	47.0	Tripolium pannonicum	40.6
Juncus gerardi	35.6	Taraxacum besarabicum	30.5
Spergularia marina	28.8	Atriplex prostrata	26.7
Triglochin maritima	26.5	Plantago maritima	25.2
Spergularia media	23.4	Glaux maritima	23.3
Suaeda maritima	20.4	Bolboschoenus maritimus	20.4
Salicornia europaea aggr.	19.5	Lotus tenuis	19.5
Podospermum canum	18.6	Salicornia perennans	16.3
Puccinellia maritima	15.7	Trifolium fragiferum	15.4
Hordeum geniculatum	15.2	Bupleurum tenuissimum	15.0

Constant species (occurrence frequencies)

Tripolium pannonicum	36.0	Puccinellia distans	35.0
Juncus gerardi	32.0	Atriplex prostrata	27.0
Agrostis stolonifera	26.0	Plantago maritima	25.0
Bolboschoenus maritimus	20.0	Triglochin maritima	18.0
Glaux maritima	17.0	Spergularia marina	16.0
Argentina anserina	16.0	Plantago major	14.0
Phragmites australis	14.0	Lotus tenuis	14.0
Trifolium fragiferum	12.0	Suaeda maritima	12.0
Spergularia media	12.0	Elytrigia repens	12.0
Taraxacum besarabicum	11.0	Carex distans	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Puccinellia distans	13.0	Juncus gerardi	9.0
Bolboschoenus maritimus	7.0	Plantago maritima	5.0
Atriplex prostrata	5.0		

R64 - [E64] Semi-desert salt pan

*Diagnostic species (phi coefficient * 100)*

Halimione verrucifera	50.3	Eremopyrum triticeum	49.5
Artemisia santonicum	48.5	Limonium gmelinii	46.1
Puccinellia dolicholepis	45.8	Limonium suffruticosum	44.7
Halocnemum strobilaceum	43.3	Atriplex aucheri	38.1
Petrosimonia oppositifolia	36.8	Petrosimonia litwinowii	35.6
Eremopyrum orientale	35.1	Puccinellia gigantea	31.8
Atriplex tatarica	31.0	Bassia sedoides	30.4
Climacoptera crassa	29.9	Artemisia lerchiana	25.6
Ceratocephala falcata	25.3	Suaeda acuminata	24.2
Salsola dendroides	22.7	Xanthoparmelia camtschadalis	22.5
Salsola laricina	22.4	Anabasis aphylla	22.3
Alcea acaulis	22.1	Minuartia isaurica	21.7
Limonium bellidifolium	20.0	Hypericum atomarium	19.6
Alyssum turkestanicum	19.6	Ofaiston monandrum	19.2
Salsola tamariscina	19.0	Atriplex cana	19.0
Kalidium caspicum	18.8	Astragalus pinetorum	18.7

Climacoptera brachiata	18.6	Noccaea vesicaria	18.5
Paronychia beauverdii	18.2	Paronychia kurdica	18.1
Telephium oligospermum	17.6	Physcia adscendens	17.6
Lappula marginata	17.3	Petrosimonia brachiata	17.2
Chorisporea tenella	16.8	Camphorosma songorica	16.7
Glycyrrhiza glabra	16.3	Medicago orthoceras	16.1
Camphorosma monspeliaca	15.9	Leymus ramosus	15.8
Puccinellia tenuissima	15.4	Meniocus linifolius	15.3
<i>Constant species (occurrence frequencies)</i>			
Artemisia santonicum	35.0	Limonium gmelinii	28.0
Halimione verrucifera	28.0	Eremopyrum triticeum	28.0
Puccinellia dolicholepis	22.0	Limonium suffruticosum	20.0
Halocnemum strobilaceum	20.0	Atriplex tatarica	17.0
Atriplex aucheri	17.0	Petrosimonia oppositifolia	15.0
Eremopyrum orientale	15.0	Puccinellia gigantea	13.0
Petrosimonia litwinowii	13.0	Bassia sedoides	11.0
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Halimione verrucifera	13.0	Puccinellia dolicholepis	11.0
Atriplex aucheri	9.0	Artemisia santonicum	6.0

R65 - [E65] Continental subsaline alluvial pasture and meadow

<i>Diagnostic species (phi coefficient * 100)</i>			
Dodartia orientalis	86.0	Rhaponticum repens	77.6
Bassia sedoides	59.3	Althaea officinalis	58.6
Hierochloe repens	58.5	Glycyrrhiza echinata	57.8
Glycyrrhiza glabra	56.8	Lythrum virgatum	53.4
Inula britannica	52.7	Euphorbia esula	52.6
Rubia tatarica	48.1	Aeluropus littoralis	44.7
Eryngium planum	41.9	Artemisia austriaca	35.7
Astragalus contortuplicatus	34.9	Helianthus lenticularis	34.7
Glyceria arundinacea	34.7	Tanacetum achilleifolium	33.8
Sibbaldianthe bifurca	33.8	Petrosimonia oppositifolia	33.3
Schoenoplectus supinus	33.2	Euphorbia chamaesyce	32.8
Argusia sibirica	32.6	Carex praecox	32.4
Alhagi maurorum	32.4	Bolboschoenus glaucus	32.2
Atriplex aucheri	32.1	Polygonum patulum	31.9
Crypsis aculeata	31.1	Medicago sativa	30.3
Carduus uncinatus	30.2	Carex stenophylla	30.1
Malva pusilla	30.0	Tribulus terrestris	28.6
Polygonum arenarium	28.3	Salsola tragus	28.2
Scutellaria hastifolia	27.6	Lappula squarrosa	27.2
Limonium gmelinii	27.0	Cynanchum acutum	25.1
Atriplex tatarica	25.0	Amaranthus albus	24.8
Alyssum turkestanicum	24.7	Galium humifusum	24.5

Eragrostis minor	23.9	Lepidium ruderales	22.5
Artemisia santonicum	22.5	Xanthium strumarium	21.8
Gypsophila muralis	20.8	Tragopogon dubius	20.7
Senecio leucanthemifolius	20.7	Herniaria glabra	20.7
Jacobaea vulgaris	19.0	Asparagus officinalis	18.9
Thalictrum flavum	17.3	Butomus umbellatus	17.2
Digitaria sanguinalis	17.1	Rorippa palustris	16.1
<i>Constant species (occurrence frequencies)</i>			
Dodartia orientalis	75.0	Rhaponticum repens	62.0
Inula britannica	50.0	Euphorbia esula	50.0
Althaea officinalis	50.0	Lythrum virgatum	38.0
Hierochloe repens	38.0	Glycyrrhiza glabra	38.0
Glycyrrhiza echinata	38.0	Elytrigia repens	38.0
Bassia sedoides	38.0	Rubia tatarica	25.0
Medicago sativa	25.0	Jacobaea vulgaris	25.0
Eryngium planum	25.0	Carex praecox	25.0
Artemisia austriaca	25.0	Aeluropus littoralis	25.0
Xanthium strumarium	12.0	Tribulus terrestris	12.0
Tragopogon dubius	12.0	Thalictrum flavum	12.0
Tanacetum achilleifolium	12.0	Sibbaldianthe bifurca	12.0
Schoenoplectus supinus	12.0	Senecio leucanthemifolius	12.0
Scutellaria hastifolia	12.0	Salsola tragus	12.0
Rorippa palustris	12.0	Polygonum patulum	12.0
Polygonum aviculare	12.0	Polygonum arenarium	12.0
Poa pratensis aggr.	12.0	Petrosimonia oppositifolia	12.0
Malva pusilla	12.0	Limonium gmelinii	12.0
Lepidium ruderales	12.0	Lappula squarrosa	12.0
Lactuca serriola	12.0	Chenopodium album	12.0
Herniaria glabra	12.0	Helianthus lenticularis	12.0
Gypsophila muralis	12.0	Glyceria arundinacea	12.0
Galium humifusum	12.0	Euphorbia chamaesyce	12.0
Eragrostis minor	12.0	Echinochloa crus-galli	12.0
Digitaria sanguinalis	12.0	Cynanchum acutum	12.0
Crypsis aculeata	12.0	Convolvulus arvensis	12.0
Cirsium arvense	12.0	Carex stenophylla	12.0
Carduus uncinatus	12.0	Butomus umbellatus	12.0
Bolboschoenus glaucus	12.0	Bidens tripartita	12.0
Atriplex tatarica	12.0	Atriplex aucheri	12.0
Astragalus contortuplicatus	12.0	Asparagus officinalis	12.0
Artemisia santonicum	12.0	Argusia sibirica	12.0
Amaranthus albus	12.0	Alyssum turkestanicum	12.0
Alhagi maurorum	12.0		
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Dodartia orientalis	25.0	Glycyrrhiza glabra	12.0
Carex stenophylla	12.0	Aeluropus littoralis	12.0

S11 - [F11] Shrub tundra

*Diagnostic species (phi coefficient * 100)*

Dicranum fuscescens	56.6	Cladonia mitis	51.7
Cetraria ericetorum	48.0	Ptilidium ciliare	45.9
Cladonia gracilis	45.3	Empetrum nigrum aggr.	43.4
Ochrolechia frigida	41.1	Cladonia uncialis	40.6
Betula nana	40.5	Barbilophozia hatcheri	39.8
Stereocaulon paschale	39.1	Peltigera scabrosa	38.3
Cladonia bellidiflora	38.3	Cladonia amaurocraea	37.6
Cetraria nivalis	37.5	Pertusaria geminipara	36.9
Cladonia coccifera	36.9	Sphaerophorus globosus	36.5
Cladonia pleurota	35.9	Cladonia crispata	34.7
Dicranum elongatum	34.6	Anastrophyllum minutum	34.6
Arctostaphylos alpinus	33.4	Cladonia rangiferina	32.9
Psoroma hypnorum	32.3	Cetraria cucullata	32.2
Nephroma arcticum	32.1	Vaccinium uliginosum	31.8
Cornus suecica	31.2	Pedicularis lapponica	30.1
Calamagrostis lapponica	28.7	Cladonia macroceras	27.1
Vaccinium vitis-idaea	26.7	Barbilophozia kunzeana	25.4
Lophozia wenzelii	24.5	Cassiope tetragona	24.4
Ochrolechia inaequatula	22.9	Cladonia macrophylla	22.9
Carex bigelowii	22.9	Rubus chamaemorus	22.8
Stereocaulon alpinum	22.4	Barbilophozia floerkei	21.9
Peltigera aphthosa	21.1	Cetraria islandica	20.5
Juncus trifidus	20.1	Loiseleuria procumbens	20.0
Phyllodoce caerulea	19.9	Ochrolechia lapuensis	19.5
Polytrichum hyperboreum	18.7	Pertusaria dactylina	18.7
Alectoria nigricans	18.4	Dicranum majus	17.6
Cladonia stellaris	17.6	Barbilophozia lycopodioides	17.5
Cetrariella delisei	17.2	Pleurozium schreberi	16.9
Pohlia nutans	16.7	Cladonia sulphurina	16.7
Sanionia uncinata	16.2	Trapeliopsis granulosa	16.0
Peltigera malacea	16.0	Salix glauca	15.9
Andromeda polifolia	15.7	Tetralophozia setiformis	15.6
Barbilophozia binstaedii	15.5	Thamnolia vermicularis	15.3
Betula pubescens var. pumila	15.3	Aulacomnium turgidum	15.2

Constant species (occurrence frequencies)

Empetrum nigrum aggr.	86.0	Vaccinium vitis-idaea	75.0
Vaccinium uliginosum	62.0	Pleurozium schreberi	54.0
Betula nana	53.0	Dicranum fuscescens	47.0
Cladonia gracilis	44.0	Ptilidium ciliare	42.0
Cladonia mitis	42.0	Cladonia uncialis	41.0
Cladonia rangiferina	39.0	Vaccinium myrtillus	38.0
Avenella flexuosa	33.0	Rubus chamaemorus	30.0
Hylocomium splendens	30.0	Dicranum scoparium	30.0

Cetraria ericetorum	30.0	Cladonia coccifera	27.0
Ochrolechia frigida	26.0	Andromeda polifolia	25.0
Polytrichum commune	24.0	Cetraria nivalis	24.0
Nephroma arcticum	23.0	Cladonia bellidiflora	23.0
Pohlia nutans	21.0	Cornus suecica	21.0
Cladonia crispata	21.0	Cetraria islandica	21.0
Stereocaulon paschale	20.0	Sphaerophorus globosus	20.0
Cladonia pleurota	20.0	Cladonia amaurocraea	20.0
Barbilophozia hatcheri	20.0	Festuca ovina	18.0
Cetraria cucullata	18.0	Arctostaphylos alpinus	18.0
Polytrichum strictum	17.0	Peltigera scabrosa	17.0
Dicranum elongatum	17.0	Pertusaria geminipara	16.0
Cladonia arbuscula	16.0	Carex bigelowii	15.0
Calluna vulgaris	15.0	Anastrophyllum minutum	15.0
Peltigera aphthosa	14.0	Juncus trifidus	14.0
Bistorta vivipara	14.0	Psoroma hypnorum	13.0
Eriophorum vaginatum	13.0	Dicranum majus	13.0
Cladonia stellaris	13.0	Polytrichum juniperinum	12.0
Pedicularis lapponica	12.0	Pinus sylvestris	11.0
Calamagrostis lapponica	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Empetrum nigrum aggr.	61.0	Pleurozium schreberi	15.0
Betula nana	13.0	Hylocomium splendens	7.0
Dicranum fuscescens	6.0	Cassiope tetragona	6.0
Vaccinium myrtillus	5.0		

S12 - [F12] Moss and lichen tundra

*Diagnostic species (phi coefficient * 100)*

Cetraria ericetorum	75.7	Cladonia mitis	72.7
Stereocaulon paschale	65.5	Cladonia coccifera	65.1
Cladonia uncialis	64.4	Ochrolechia frigida	64.2
Cetraria nivalis	64.0	Dicranum fuscescens	62.9
Cladonia bellidiflora	62.8	Cladonia gracilis	60.7
Cladonia pleurota	60.0	Cladonia crispata	59.5
Cetraria cucullata	59.5	Pertusaria geminipara	58.2
Sphaerophorus globosus	55.7	Cladonia macrophylla	53.6
Anastrophyllum minutum	52.8	Ptilidium ciliare	51.5
Cladonia amaurocraea	47.6	Juncus trifidus	47.0
Polytrichum hyperboreum	46.8	Cladonia rangiferina	45.5
Betula nana	43.6	Cladonia sulphurina	43.0
Bryocaulon divergens	42.8	Peltigera scabrosa	40.6
Alectoria nigricans	40.5	Phyllodoce caerulea	40.3
Carex bigelowii	40.0	Cetraria islandica	39.6
Cladonia macroceras	39.1	Racomitrium lanuginosum	39.0
Calamagrostis lapponica	38.8	Barbilophozia hatcheri	38.8

Dicranum elongatum	37.7	Lycopodium alpinum	37.1
Alectoria ochroleuca	37.0	Thamnolia vermicularis	36.8
Salix herbacea	36.4	Empetrum nigrum aggr.	36.4
Nephroma arcticum	35.7	Stereocaulon alpinum	35.4
Trapeliopsis granulosa	35.1	Pedicularis lapponica	34.6
Cladonia stellaris	34.4	Lophozia wenzelii	33.7
Pertusaria dactylina	32.8	Dactylina arctica	32.8
Tetralophozia setiformis	32.4	Arctostaphylos alpinus	29.6
Barbilophozia floerkei	28.3	Parmelia skultii	28.2
Pohlia nutans	27.6	Placynthiella uliginosa	26.9
Vaccinium uliginosum	26.8	Salix glauca	26.7
Loiseleuria procumbens	26.0	Ochrolechia inaequatula	25.9
Ochrolechia lapuensis	24.7	Stellaria longipes	24.1
Psoroma hypnorum	23.9	Aulacomnium turgidum	23.6
Cladonia ecmocyna	23.2	Cladonia deformis	23.1
Vaccinium vitis-idaea	23.0	Luzula nivalis	22.8
Lophozia bicrenata	21.9	Saxifraga nivalis	21.7
Barbilophozia kunzeana	21.3	Lophozia ventricosa	21.1
Polytrichum commune	21.0	Cetrariella delisei	20.8
Gymnomitrium corallioides	20.3	Saxifraga hyperborea	20.1
Papaver radicum	19.8	Ochrolechia gonatodes	19.2
Imadophila ericetorum	19.2	Dactylina ramulosa	19.2
Diplophyllum taxifolium	19.1	Lophozia longidens	18.9
Cetraria nigricans	18.8	Cladonia cornuta	18.6
Polytrichum juniperinum	18.5	Cardamine bellidifolia	18.3
Cetraria aculeata	18.2	Polytrichum strictum	18.1
Barbilophozia binstaedii	18.1	Diapensia lapponica	17.9
Placynthiella oligotropha	17.3	Cetraria delisei	17.3
Andreaea rupestris	16.9	Lophozia sudetica	16.8
Marsupella arctica	16.7	Gymnomitrium concinnatum	16.2
Toninia cumulata	16.1	Orthocaulis kunzeanus	15.9
Cladonia subfurcata	15.9	Cassiope tetragona	15.7
Prasanthus suecicus	15.5	Barbilophozia atlantica	15.5
Parmelia omphalodes	15.4	Schistidium strictum	15.1
Luzula arcuata	15.1	Draba subcapitata	15.1
<i>Constant species (occurrence frequencies)</i>			
Cladonia uncialis	75.0	Empetrum nigrum aggr.	72.0
Cladonia mitis	72.0	Cladonia gracilis	67.0
Cetraria ericetorum	67.0	Vaccinium vitis-idaea	65.0
Cladonia coccifera	62.0	Betula nana	59.0
Dicranum fuscescens	58.0	Cladonia rangiferina	58.0
Cetraria nivalis	55.0	Ochrolechia frigida	54.0
Vaccinium uliginosum	52.0	Ptilidium ciliare	51.0
Cladonia bellidiflora	51.0	Stereocaulon paschale	49.0
Cladonia crispata	48.0	Cladonia pleurota	46.0
Cetraria cucullata	46.0	Cetraria islandica	45.0
Polytrichum commune	42.0	Sphaerophorus globosus	41.0

Juncus trifidus	41.0	Pertusaria geminipara	38.0
Pohlia nutans	36.0	Racomitrium lanuginosum	35.0
Pleurozium schreberi	32.0	Cladonia macrophylla	32.0
Anastrophyllum minutum	32.0	Cladonia amaurocraea	30.0
Carex bigelowii	30.0	Cladonia stellaris	29.0
Vaccinium myrtillus	28.0	Nephroma arcticum	28.0
Salix herbacea	26.0	Polytrichum hyperboreum	26.0
Festuca ovina	25.0	Thamnia vermicularis	23.0
Cladonia sulphurina	23.0	Bryocaulon divergens	23.0
Alectoria nigricans	23.0	Polytrichum strictum	22.0
Polytrichum juniperinum	22.0	Phyllodoce caerulea	20.0
Peltigera scabrosa	20.0	Dicranum elongatum	20.0
Barbilophozia hatcheri	20.0	Lycopodium alpinum	19.0
Cladonia macroceras	19.0	Calamagrostis lapponica	19.0
Avenella flexuosa	19.0	Alectoria ochroleuca	19.0
Trapeliopsis granulosa	17.0	Rubus chamaemorus	17.0
Polytrichum piliferum	17.0	Stereocaulon alpinum	16.0
Pedicularis lapponica	16.0	Dicranum scoparium	16.0
Arctostaphylos alpinus	16.0	Andromeda polifolia	16.0
Lophozia wenzelii	14.0	Loiseleuria procumbens	14.0
Hylocomium splendens	14.0	Cetraria aculeata	14.0
Calluna vulgaris	14.0	Barbilophozia floerkei	14.0
Solidago virgaurea	13.0	Pertusaria dactylina	13.0
Dactylina arctica	13.0	Tetralophozia setiformis	12.0
Salix glauca	12.0	Placynthiella uliginosa	12.0
Cladonia cornuta	12.0	Cladonia arbuscula	12.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Stereocaulon paschale	35.0	Racomitrium lanuginosum	26.0
Empetrum nigrum aggr.	12.0	Ochrolechia frigida	10.0
Cladonia stellaris	9.0	Cetraria nivalis	7.0

S21 - [F21] Subarctic and alpine dwarf Salix scrub

*Diagnostic species (phi coefficient * 100)*

Salix herbacea	52.7	Salix retusa	49.5
Bistorta vivipara	43.1	Salix reticulata	40.1
Silene acaulis	36.6	Gnaphalium supinum	28.0
Poa alpina	26.8	Salix serpillifolia	26.6
Ranunculus alpestris	26.2	Salix polaris	26.1
Bartsia alpina	26.0	Dryas octopetala	24.1
Kobresia myosuroides	23.8	Saxifraga oppositifolia	23.6
Veronica alpina	23.1	Festuca quadriflora	22.1
Primula minima	21.7	Polytrichastrum alpinum	21.0
Minuartia sedoides	21.0	Luzula alpinopilosa	20.8
Myosotis alpestris	20.6	Pedicularis verticillata	20.4
Leucanthemopsis alpina	20.4	Salix reptans	19.2

Veronica aphylla	19.0	Sibbaldia procumbens	18.5
Carex curvula	18.5	Cetraria islandica	18.0
Carex atrata	17.6	Saxifraga aizoides	17.2
Gentiana verna	16.9	Ligusticum mutellinoides	16.8
Campanula alpina	16.8	Antennaria carpatica	16.8
Carex bigelowii	16.3	Thamnotia vermicularis	16.2
Arenaria ciliata	16.2	Saxifraga androsacea	16.1
Sanionia uncinata	16.1	Sedum alpestre	16.0
Oreochloa disticha	16.0	Lloydia serotina	15.4
Hornungia alpina	15.3	Gentiana nivalis	15.3
Conostomum tetragonum	15.2	Luzula confusa	15.1
<i>Constant species (occurrence frequencies)</i>			
Bistorta vivipara	57.0	Salix herbacea	41.0
Salix retusa	33.0	Poa alpina	32.0
Silene acaulis	29.0	Salix reticulata	24.0
Bartsia alpina	22.0	Dryas octopetala	18.0
Cetraria islandica	18.0	Gnaphalium supinum	16.0
Saxifraga oppositifolia	15.0	Myosotis alpestris	14.0
Selaginella selaginoides	13.0	Ranunculus alpestris	13.0
Carex sempervirens	13.0	Campanula scheuchzeri	13.0
Saxifraga aizoides	12.0	Polytrichastrum alpinum	12.0
Gentiana verna	12.0	Veronica alpina	11.0
Vaccinium vitis-idaea	11.0	Vaccinium uliginosum	11.0
Salix polaris	11.0	Luzula alpinopilosa	11.0
Hylocomium splendens	11.0	Festuca quadriflora	11.0
Bellidiastrum michelii	11.0	Anthoxanthum odoratum aggr.	11.0
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Salix herbacea	22.0	Salix retusa	21.0
Salix reticulata	9.0	Salix serpillifolia	5.0

S22 - [F22a] Alpine and subalpine ericoid heath

*Diagnostic species (phi coefficient * 100)*

Dryas octopetala	38.0	Rhododendron ferrugineum	22.7
Juniperus communis subsp. nana	22.1	Rhododendron myrtifolium	20.9
Loiseleuria procumbens	20.9	Arctostaphylos uva-ursi	20.7
Cetraria islandica	19.3	Carex firma	19.1
Rhododendron hirsutum	19.0	Juncus trifidus	18.7
Homogyne alpina	17.8	Bistorta vivipara	16.3
Helianthemum alpestre	15.0		

Constant species (occurrence frequencies)

Vaccinium myrtillus	47.0	Avenella flexuosa	32.0
Vaccinium vitis-idaea	31.0	Dryas octopetala	30.0
Calluna vulgaris	27.0	Homogyne alpina	23.0

Vaccinium uliginosum	21.0	Juniperus communis subsp. nana	21.0
Cetraria islandica	20.0	Bistorta vivipara	20.0
Rhododendron ferrugineum	19.0	Anthoxanthum odoratum aggr.	17.0
Arctostaphylos uva-ursi	16.0	Sesleria caerulea	15.0
Potentilla erecta	15.0	Empetrum nigrum aggr.	15.0
Carex sempervirens	15.0	Hylocomium splendens	14.0
Nardus stricta	13.0	Juncus trifidus	13.0
Dicranum scoparium	13.0	Solidago virgaurea	12.0
Lotus corniculatus	12.0	Campanula scheuchzeri	12.0
Rhododendron hirsutum	11.0	Erica carnea	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Dryas octopetala	21.0	Vaccinium myrtillus	15.0
Rhododendron ferrugineum	13.0	Arctostaphylos uva-ursi	12.0
Calluna vulgaris	11.0	Empetrum nigrum aggr.	8.0
Loiseleuria procumbens	6.0	Erica carnea	6.0
Rhododendron hirsutum	5.0		

S23 - [F22b] Alpine and subalpine Juniperus scrub

*Diagnostic species (phi coefficient * 100)*

Juniperus communis subsp. nana	75.6	Bruckenthalia spiculifolia	27.2
Juniperus sabina	23.1	Daphne oleoides	22.1
Rhododendron myrtifolium	21.3	Potentilla aurea	19.0
Festuca airoides	18.6	Homogyne alpina	17.2
Carex kitaibeliana	16.2	Soldanella hungarica	15.8
Silene multicaulis	15.5	Arctostaphylos uva-ursi	15.3
Festuca valida	15.2	Sesleria juncifolia	15.1

Constant species (occurrence frequencies)

Juniperus communis subsp. nana	95.0	Vaccinium myrtillus	47.0
Avenella flexuosa	43.0	Vaccinium vitis-idaea	28.0
Homogyne alpina	23.0	Vaccinium uliginosum	22.0
Luzula luzuloides	21.0	Nardus stricta	20.0
Anthoxanthum odoratum aggr.	19.0	Potentilla aurea	18.0
Campanula patula	15.0	Helianthemum nummularium	14.0
Festuca nigrescens	14.0	Picea abies	13.0
Bruckenthalia spiculifolia	12.0	Arctostaphylos uva-ursi	12.0
Thymus praecox	11.0	Hypericum maculatum	11.0
Festuca rubra	11.0	Antennaria dioica	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Juniperus communis subsp. nana	92.0	Juniperus sabina	8.0
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S24 - [F22c] Subalpine genistoid scrub of the Amphi-Adriatic region

*Diagnostic species (phi coefficient * 100)*

Genista radiata	97.4	Brachypodium genuense	44.1
Festuca luedii	35.9	Stachys alopecuros	34.7
Fourraea alpina	33.1	Carex macrolepis	31.7
Erica carnea	31.2	Laserpitium peucedanoides	30.3
Phyteuma scheuchzeri	30.2	Laserpitium siler	28.9
Bromopsis condensata	28.7	Viola thomasiana	28.3
Globularia meridionalis	28.3	Cyanus triumfettii	27.0
Galium lucidum	26.4	Teucrium montanum	25.8
Asperula purpurea	24.9	Cephalaria laevigata	24.8
Daphne oleoides	24.7	Syringa vulgaris	24.5
Rosa pendulina	24.0	Centaurea nervosa	23.5
Athamanta turbith	23.5	Bupthalmum salicifolium	23.2
Carduus nutans	22.7	Koeleria eriostachya	22.5
Carex sempervirens	22.0	Cirsium erisithales	21.9
Anemone trifolia	21.9	Polygala chamaebuxus	21.8
Bromopsis erecta	21.8	Carduus defloratus aggr.	21.6
Thymus praecox	20.4	Cerastium banaticum	20.2
Dichoropetalum schottii	20.1	Saxifraga hostii	19.9
Leucanthemum heterophyllum	19.9	Festuca xanthina	19.9
Dianthus petraeus	19.9	Linum viscosum	19.5
Festuca alpestris	19.5	Cynoglossis barrelieri	19.4
Helianthemum nummularium	18.9	Leucanthemum adustum	18.8
Euphorbia myrsinites	18.8	Centaurea parlatoris	18.8
Koeleria lobata	18.6	Clinopodium alpinum	18.6
Thesium rostratum	18.3	Sesleria rigida	18.3
Salix appendiculata	18.3	Erysimum sylvestre	18.3
Lilium carnolicum	18.2	Cytisus hirsutus	18.2
Daphne blagayana	17.9	Helictochloa praeusta	17.8
Astrantia minor	17.8	Biscutella laevigata	17.7
Hypericum richeri	17.5	Lunaria annua	17.4
Laserpitium latifolium	17.2	Cotoneaster tomentosus	17.2
Scutellaria altissima	17.1	Carlina acaulis	17.0
Calamagrostis varia	17.0	Thymus longicaulis	16.9
Teucrium chamaedrys	16.8	Seseli rigidum	16.8
Sempervivum marmoreum	16.8	Dianthus monspessulanus	16.6
Cyclamen purpurascens	16.4	Sesleria caerulea	16.2
Orobanche gracilis	16.1	Sesleria nitida	15.9
Cytisus purpureus	15.3		

Constant species (occurrence frequencies)

Genista radiata	98.0	Bromopsis erecta	40.0
Teucrium chamaedrys	36.0	Helianthemum nummularium	33.0
Thymus praecox	29.0	Teucrium montanum	29.0
Erica carnea	29.0	Sorbus aria aggr.	24.0
Rosa pendulina	24.0	Galium lucidum	24.0
Carex sempervirens	24.0	Brachypodium genuense	24.0
Stachys alopecuros	22.0	Sesleria caerulea	22.0

Carlina acaulis	22.0	Carduus defloratus aggr.	22.0
Polygala chamaebuxus	20.0	Lotus corniculatus	20.0
Bupthalmum salicifolium	20.0	Laserpitium siler	18.0
Dactylis glomerata	18.0	Carex humilis	18.0
Calamagrostis varia	18.0	Vaccinium myrtillus	16.0
Solidago virgaurea	16.0	Laserpitium latifolium	16.0
Galium mollugo aggr.	16.0	Fourraea alpina	16.0
Cytisus hirsutus	16.0	Cyanus triumfettii	16.0
Cirsium erisithales	16.0	Cerastium arvense	16.0
Carduus nutans	16.0	Asperula purpurea	16.0
Anthoxanthum odoratum aggr.	16.0	Achillea millefolium aggr.	16.0
Potentilla erecta	13.0	Phyteuma scheuchzeri	13.0
Laserpitium peucedanoides	13.0	Festuca nigrescens	13.0
Festuca luedii	13.0	Cyclamen purpurascens	13.0
Carex macrolepis	13.0	Carex flacca	13.0
Campanula scheuchzeri	13.0	Calamagrostis arundinacea	13.0
Biscutella laevigata	13.0	Avenella flexuosa	13.0
Anemone trifolia	13.0	Amelanchier ovalis	13.0
Thymus longicaulis	11.0	Tanacetum corymbosum	11.0
Syringa vulgaris	11.0	Stachys recta	11.0
Silene vulgaris	11.0	Salix appendiculata	11.0
Quercus pubescens	11.0	Prunella grandiflora	11.0
Pimpinella saxifraga	11.0	Nardus stricta	11.0
Globularia meridionalis	11.0	Galium verum	11.0
Daphne oleoides	11.0	Calluna vulgaris	11.0
Brachypodium rupestre	11.0	Brachypodium pinnatum	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Genista radiata	98.0	Erica carnea	11.0
Festuca luedii	7.0		

S25 - [F23] Subalpine and subarctic deciduous scrub

*Diagnostic species (phi coefficient * 100)*

Alnus viridis	60.7	Peucedanum ostruthium	33.5
Viola biflora	32.8	Athyrium distentifolium	31.1
Rumex arifolius	29.3	Adenostyles alliariae	29.2
Salix silesiaca	25.8	Saxifraga rotundifolia	24.8
Veratrum album	24.6	Achillea macrophylla	23.9
Salix hastata	23.4	Geranium sylvaticum aggr.	23.1
Salix appendiculata	22.6	Salix waldsteiniana	21.7
Salix lapponum	21.6	Salix helvetica	21.0
Agrostis schraderiana	20.2	Lactuca alpina	20.0
Chaerophyllum villarsii	18.4	Salix phylicifolia	18.3
Aconitum napellus	18.2	Stellaria borealis	17.7
Salix glauca	16.3	Stellaria nemorum	16.2
Epilobium alpestre	15.3	Rhodiola rosea	15.1

Polystichum lonchitis	15.1		
<i>Constant species (occurrence frequencies)</i>			
Alnus viridis	51.0	Viola biflora	35.0
Geranium sylvaticum aggr.	33.0	Vaccinium myrtillus	32.0
Rubus idaeus	28.0	Deschampsia cespitosa	27.0
Adenostyles alliariae	27.0	Veratrum album	26.0
Solidago virgaurea	26.0	Rumex arifolius	26.0
Sorbus aucuparia	24.0	Stellaria nemorum	23.0
Peucedanum ostruthium	22.0	Saxifraga rotundifolia	21.0
Chaerophyllum hirsutum	21.0	Athyrium distentifolium	21.0
Senecio nemorensis aggr.	20.0	Oxalis acetosella	20.0
Homogyne alpina	19.0	Avenella flexuosa	19.0
Picea abies	16.0	Luzula sylvatica	16.0
Hypericum maculatum	16.0	Calamagrostis villosa	16.0
Geum rivale	15.0	Dryopteris filix-mas	15.0
Athyrium filix-femina	15.0	Salix appendiculata	14.0
Lactuca alpina	13.0	Dryopteris dilatata	13.0
Thalictrum aquilegifolium	12.0	Salix silesiaca	12.0
Rhododendron ferrugineum	12.0	Silene vulgaris	11.0
Poa nemoralis	11.0	Luzula luzuloides	11.0
Chaerophyllum villarsii	11.0	Aconitum napellus	11.0
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Alnus viridis	47.0	Salix lapponum	7.0
Salix silesiaca	6.0	Salix phylicifolia	6.0
Rhamnus alpina	5.0	Adenostyles alliariae	5.0
S26 - [F24] Subalpine Pinus mugo scrub			
<i>Diagnostic species (phi coefficient * 100)</i>			
Pinus mugo	85.9	Rhododendron hirsutum	45.5
Sorbus chamaemespilus	42.1	Homogyne alpina	38.8
Erica carnea	36.1	Salix glabra	32.1
Juniperus communis subsp. nana	32.1	Calamagrostis villosa	31.6
Rhodothamnus chamaecistus	28.4	Salix appendiculata	25.7
Lonicera caerulea	25.7	Daphne striata	25.3
Laserpitium peucedanoides	25.0	Salix waldsteiniana	24.6
Cetraria islandica	24.3	Vaccinium vitis-idaea	24.2
Viola biflora	23.9	Vaccinium myrtillus	22.8
Rosa pendulina	22.7	Valeriana saxatilis	22.2
Valeriana tripteris	22.0	Rhododendron ferrugineum	22.0
Clematis alpina	21.5	Valeriana montana	21.4
Sesleria caerulea	20.1	Stachys alopecuros	20.0
Calamagrostis varia	19.5	Astrantia bavarica	19.3
Carex ferruginea	19.2	Veratrum album	18.9
Luzula sylvatica	18.8	Galium anisophyllum	17.8

Campanula scheuchzeri	17.8	Lycopodium annotinum	17.5
Bellidiastrum michelii	17.4	Athyrium distentifolium	17.2
Gentiana pannonica	17.0	Rubus saxatilis	16.6
Soldanella alpina	16.5	Dryas octopetala	16.3
Rhododendron myrtifolium	15.8	Homogyne sylvestris	15.5
Biscutella laevigata	15.3	Polygala chamaebuxus	15.2
Carex firma	15.2	Paederota lutea	15.1
Helianthemum alpestre	15.0		
<i>Constant species (occurrence frequencies)</i>			
Pinus mugo	99.0	Vaccinium myrtillus	85.0
Vaccinium vitis-idaea	68.0	Homogyne alpina	53.0
Picea abies	39.0	Dicranum scoparium	39.0
Sorbus aucuparia	35.0	Calamagrostis villosa	35.0
Avenella flexuosa	35.0	Hylocomium splendens	34.0
Rhododendron hirsutum	33.0	Erica carnea	33.0
Pleurozium schreberi	32.0	Juniperus communis subsp. nana	32.0
Luzula sylvatica	30.0	Sorbus chamaemespilus	27.0
Sesleria caerulea	27.0	Oxalis acetosella	27.0
Viola biflora	25.0	Rhytidadelphus triquetrus	25.0
Cetraria islandica	25.0	Solidago virgaurea	23.0
Rubus saxatilis	23.0	Rosa pendulina	23.0
Geranium sylvaticum aggr.	21.0	Valeriana tripteris	20.0
Lycopodium annotinum	20.0	Dryopteris dilatata	20.0
Calamagrostis varia	20.0	Veratrum album	19.0
Hieracium murorum	19.0	Rhododendron ferrugineum	18.0
Campanula scheuchzeri	18.0	Vaccinium uliginosum	17.0
Bellidiastrum michelii	17.0	Salix appendiculata	16.0
Rubus idaeus	16.0	Potentilla erecta	16.0
Daphne mezereum	16.0	Valeriana montana	15.0
Salix glabra	14.0	Luzula luzuloides	14.0
Larix decidua	14.0	Galium anisophyllum	14.0
Tortella tortuosa	13.0	Rhodothamnus chamaecistus	13.0
Polygonatum verticillatum	13.0	Polygala chamaebuxus	13.0
Phyteuma orbiculare	13.0	Lonicera caerulea	13.0
Clematis alpina	13.0	Carex ferruginea	13.0
Carduus defloratus aggr.	13.0	Soldanella alpina	12.0
Dryas octopetala	12.0	Stachys alopecuroides	11.0
Juniperus communis subsp. communis	11.0	Calluna vulgaris	11.0
Biscutella laevigata	11.0	Anthoxanthum odoratum aggr.	11.0
Adenostyles alliariae	11.0		
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Pinus mugo	98.0	Vaccinium myrtillus	30.0
Rhododendron hirsutum	11.0	Erica carnea	11.0
Rhododendron ferrugineum	6.0	Pleurozium schreberi	6.0

S31 - [F31a] Lowland to montane temperate and submediterranean Juniperus scrub

*Diagnostic species (phi coefficient * 100)*

Juniperus communis subsp. communis	42.6	Barbilophozia barbata	19.5
Brachypodium genuense	19.1	Daphne oleoides	18.1
Campanula collina	16.5	Globularia meridionalis	16.2
Stachys macrantha	15.2	Carex macrolepis	15.1
Sesleria juncifolia	15.0		

Constant species (occurrence frequencies)

Juniperus communis subsp. communis	100.0	Avenella flexuosa	30.0
Calluna vulgaris	25.0	Pleurozium schreberi	23.0
Vaccinium myrtillus	21.0	Dicranum scoparium	21.0
Rosa canina aggr.	16.0	Festuca ovina	15.0
Lotus corniculatus	14.0	Hypnum jutlandicum	14.0
Teucrium chamaedrys	13.0	Hylocomium splendens	13.0
Bromopsis erecta	13.0	Anthoxanthum odoratum aggr.	13.0
Vaccinium vitis-idaea	12.0	Potentilla erecta	12.0
Hypnum cupressiforme	12.0	Helianthemum nummularium	12.0
Galium saxatile	12.0	Frangula alnus	12.0
Sorbus aucuparia	11.0	Pinus sylvestris	11.0
Brachypodium pinnatum	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Juniperus communis subsp. communis	100.0	Brachypodium pinnatum	6.0
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S32 - [F31b] Temperate Rubus scrub

*Diagnostic species (phi coefficient * 100)*

Rubus caesius	18.4		
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Constant species (occurrence frequencies)

Urtica dioica	42.0	Rubus fruticosus aggr.	42.0
Rubus idaeus	37.0	Rubus caesius	35.0
Cirsium arvense	21.0	Galium aparine	20.0
Elytrigia repens	20.0	Epilobium angustifolium	19.0
Dactylis glomerata	19.0	Sorbus aucuparia	17.0
Arrhenatherum elatius	17.0	Agrostis capillaris	15.0
Avenella flexuosa	14.0	Picea abies	13.0
Calystegia sepium	13.0	Vaccinium myrtillus	11.0
Poa trivialis	11.0	Oxalis acetosella	11.0
Calamagrostis epigejos	11.0	Betula pendula	11.0
Artemisia vulgaris	11.0	Achillea millefolium aggr.	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Rubus fruticosus aggr.	33.0	Rubus caesius	32.0
Rubus idaeus	27.0		

S33 - [F31c] Lowland to montane temperate and submediterranean genistoid scrub*Diagnostic species (phi coefficient * 100)*

Cytisus scoparius	41.5	Genista florida	36.5
Lavandula pedunculata	35.5	Cytisus multiflorus	35.1
Adenocarpus complicatus	28.0	Genista cinerascens	26.1
Thymus mastichina	26.0	Cytisus striatus	26.0
Retama sphaerocarpa	23.9	Digitalis thapsi	20.7
Santolina rosmarinifolia	18.8	Cistus ladanifer	17.2
Adenocarpus hispanicus	17.1	Cytisus cantabricus	16.9
Festuca elegans	16.6	Celtica gigantea	15.6
Cistus umbellatus	15.2		

Constant species (occurrence frequencies)

Cytisus scoparius	69.0	Pteridium aquilinum	34.0
Lavandula pedunculata	20.0	Agrostis capillaris	20.0
Teucrium scorodonia	19.0	Rubus ulmifolius	18.0
Genista florida	18.0	Calluna vulgaris	17.0
Erica arborea	15.0	Cytisus multiflorus	15.0
Rumex acetosella	14.0	Dactylis glomerata	14.0
Thymus mastichina	12.0	Holcus mollis	12.0
Crataegus monogyna	12.0	Avenella flexuosa	12.0
Achillea millefolium aggr.	12.0	Hypochaeris radicata	11.0
Hypericum perforatum	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Cytisus scoparius	56.0	Genista florida	10.0
Cytisus multiflorus	8.0	Genista cinerascens	5.0

S34 - [F31d] Balkan-Anatolian submontane genistoid scrub*Diagnostic species (phi coefficient * 100)*

Genista lydia	99.2	Festuca koritnicensis	81.0
Thymus thracicus	80.3	Rostraria cristata	71.5
Trifolium heldreichianum	56.4	Centaurea grisebachii	56.1
Minuartia hirsuta	56.0	Sesleria robusta	55.8
Carduus tmoleus	55.8	Centaurea affinis	55.0
Astragalus angustifolius	54.8	Allium guttatum	54.7
Dianthus petraeus	54.3	Hypericum olympicum	53.5
Thymus sibthorpii	51.6	Daphne oleoides	51.1
Koeleria lobata	48.6	Micropyrum tenellum	47.7
Sedum ochroleucum	47.5	Asperula aristata	44.6
Botrychium lunaria	43.8	Scabiosa ochroleuca	33.9
Juniperus communis subsp. nana	32.3	Carex humilis	24.3
Anthoxanthum odoratum aggr.	18.4		

Constant species (occurrence frequencies)

Genista lydia	100.0	Thymus thracicus	67.0
Rostraria cristata	67.0	Festuca koritnicensis	67.0
Anthoxanthum odoratum aggr.	67.0	Trifolium heldreichianum	33.0
Thymus sibthorpii	33.0	Sesleria robusta	33.0
Sedum ochroleucum	33.0	Scabiosa ochroleuca	33.0
Rumex acetosella	33.0	Minuartia hirsuta	33.0
Micropyrum tenellum	33.0	Koeleria lobata	33.0
Juniperus communis subsp. nana	33.0	Hypericum olympicum	33.0
Helianthemum nummularium	33.0	Fragaria vesca	33.0
Euphorbia amygdaloides	33.0	Dianthus petraeus	33.0
Daphne oleoides	33.0	Centaurea grisebachii	33.0
Centaurea affinis	33.0	Carex humilis	33.0
Carduus tmoleus	33.0	Calamagrostis arundinacea	33.0
Bromus hordeaceus	33.0	Brachypodium pinnatum	33.0
Botrychium lunaria	33.0	Astragalus angustifolius	33.0
Asperula aristata	33.0	Allium guttatum	33.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Genista lydia	100.0
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S35 - [F31e] Temperate and submediterranean thorn scrub

*Diagnostic species (phi coefficient * 100)*

Prunus spinosa	26.4	Rosa canina aggr.	20.4
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Constant species (occurrence frequencies)

Prunus spinosa	60.0	Crataegus monogyna	51.0
Rosa canina aggr.	43.0	Cornus sanguinea	36.0
Urtica dioica	31.0	Ligustrum vulgare	28.0
Rubus ulmifolius	26.0	Galium aparine	26.0
Sambucus nigra	24.0	Euonymus europaeus	21.0
Hedera helix	20.0	Dactylis glomerata	19.0
Clematis vitalba	19.0	Rubus fruticosus aggr.	17.0
Rubus caesius	17.0	Corylus avellana	16.0
Geum urbanum	14.0	Galium mollugo aggr.	14.0
Fraxinus excelsior	14.0	Rhamnus cathartica	13.0
Glechoma hederacea	13.0	Viburnum lantana	12.0
Hypericum perforatum	11.0	Acer campestre	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Prunus spinosa	37.0	Crataegus monogyna	20.0
Rubus ulmifolius	14.0	Cornus sanguinea	10.0
Sambucus nigra	7.0	Ligustrum vulgare	6.0

S36 - [F31f] Low steppic scrub

*Diagnostic species (phi coefficient * 100)*

Prunus fruticosa	62.0	Prunus tenella	53.0
Caragana frutex	43.3	Spiraea media	42.9
Phlomis tuberosa	35.5	Elytrigia intermedia	33.8
Salvia nemorosa	30.7	Galium glaucum	27.7
Vinca herbacea	25.7	Stachys recta	25.5
Hylotelephium maximum	25.4	Thalictrum minus	24.5
Melica transsilvanica	23.8	Artemisia pontica	23.3
Fragaria viridis	23.0	Falcaria vulgaris	22.9
Bromopsis inermis	22.1	Achillea pannonica	21.5
Rosa spinosissima	21.2	Adonis vernalis	21.2
Spiraea crenata	20.9	Nepeta nuda	20.8
Asparagus officinalis	20.3	Aconitum anthora	20.2
Euphorbia epithymoides	19.7	Poa transbaicalica	19.4
Medicago falcata	19.2	Peucedanum alsaticum	18.9
Iris variegata	18.3	Veronica spicata	18.0
Salvia nutans	18.0	Geranium sanguineum	18.0
Phlomis herba-venti	17.8	Waldsteinia geoides	17.6
Veronica spuria	17.1	Teucrium chamaedrys	17.0
Festuca stricta subsp. sulcata	16.9	Festuca valesiaca	16.4
Salvia dumetorum	16.3	Valeriana rossica	16.2
Stipa capillata	16.2	Allium lineare	15.9
Carduus collinus	15.8	Securigera varia	15.6
Rosa gallica	15.6	Vincetoxicum hirundinaria	15.5
Rosa majalis	15.4	Veronica austriaca	15.2
Filipendula vulgaris	15.1	Artemisia sericea	15.0

Constant species (occurrence frequencies)

Prunus fruticosa	42.0	Poa pratensis aggr.	37.0
Teucrium chamaedrys	36.0	Galium verum	34.0
Stachys recta	31.0	Prunus tenella	31.0
Euphorbia cyparissias	29.0	Fragaria viridis	27.0
Elytrigia intermedia	27.0	Medicago falcata	26.0
Hylotelephium maximum	26.0	Elytrigia repens	26.0
Prunus spinosa	25.0	Rosa canina aggr.	24.0
Caragana frutex	24.0	Vincetoxicum hirundinaria	23.0
Festuca valesiaca	23.0	Achillea millefolium aggr.	23.0
Thalictrum minus	22.0	Salvia nemorosa	22.0
Spiraea media	21.0	Securigera varia	21.0
Hypericum perforatum	21.0	Galium mollugo aggr.	20.0
Filipendula vulgaris	20.0	Phlomis tuberosa	19.0
Origanum vulgare	19.0	Galium glaucum	19.0
Festuca stricta subsp. sulcata	19.0	Geranium sanguineum	18.0
Falcaria vulgaris	18.0	Eryngium campestre	17.0
Centaurea scabiosa	17.0	Bromopsis inermis	17.0
Veronica spicata	16.0	Thymus pulegioides	16.0

Crataegus monogyna	16.0	Salvia pratensis	15.0
Potentilla cinerea	15.0	Silene latifolia	14.0
Rosa spinosissima	14.0	Brachypodium pinnatum	14.0
Veronica austriaca	13.0	Stipa capillata	13.0
Melica transsilvanica	13.0	Dactylis glomerata	13.0
Asperula cynanchica	13.0	Asparagus officinalis	13.0
Achillea pannonica	13.0	Trifolium alpestre	12.0
Phleum phleoides	12.0	Agrimonia eupatoria	12.0
Adonis vernalis	12.0	Vinca herbacea	11.0
Scabiosa ochroleuca	11.0	Potentilla argentea	11.0
Pimpinella saxifraga	11.0	Galium aparine	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Prunus fruticosa	32.0	Prunus tenella	28.0
Spiraea media	21.0	Caragana frutex	19.0

S37 - [F31g] Corylus avellana scrub

*Diagnostic species (phi coefficient * 100)*

Corylus avellana	29.8	Primula acaulis	17.1
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Constant species (occurrence frequencies)

Corylus avellana	100.0	Crataegus monogyna	44.0
Hedera helix	40.0	Geranium robertianum	30.0
Geum urbanum	29.0	Fragaria vesca	28.0
Cornus sanguinea	27.0	Prunus spinosa	26.0
Poa nemoralis	26.0	Stellaria holostea	25.0
Rubus fruticosus aggr.	25.0	Brachypodium sylvaticum	25.0
Urtica dioica	24.0	Oxalis acetosella	23.0
Lonicera periclymenum	23.0	Fraxinus excelsior	23.0
Dryopteris filix-mas	23.0	Rosa canina aggr.	22.0
Mercurialis perennis	21.0	Viola reichenbachiana	20.0
Primula acaulis	20.0	Lonicera xylosteum	20.0
Veronica chamaedrys	19.0	Hepatica nobilis	19.0
Athyrium filix-femina	18.0	Sambucus nigra	17.0
Pteridium aquilinum	17.0	Euonymus europaeus	17.0
Acer campestre	17.0	Lamium galeobdolon	16.0
Galium aparine	16.0	Campanula trachelium	16.0
Anemone nemorosa	16.0	Vicia sepium	15.0
Sanicula europaea	15.0	Ligustrum vulgare	15.0
Asarum europaeum	15.0	Aegopodium podagraria	15.0
Melica uniflora	14.0	Carex sylvatica	14.0
Ajuga reptans	14.0	Viburnum opulus	13.0
Sorbus aucuparia	13.0	Ilex aquifolium	13.0
Heracleum sphondylium	13.0	Euphorbia amygdaloides	13.0
Clematis vitalba	13.0	Viburnum lantana	12.0
Quercus petraea	12.0	Polygonatum multiflorum	12.0

Hyacinthoides non-scripta	12.0	Eurhynchium striatum	12.0
Dioscorea communis	12.0	Dactylis glomerata	12.0
Thuidium tamariscinum	11.0	Stachys officinalis	11.0
Rosa arvensis	11.0	Primula veris	11.0
Potentilla sterilis	11.0	Plagiomnium undulatum	11.0
Arum maculatum	11.0	Acer pseudoplatanus	11.0
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Corylus avellana	100.0	Hedera helix	12.0
S38 - [F31h] Temperate forest clearing scrub			
<i>Diagnostic species (phi coefficient * 100)</i>			
Salix caprea	35.4	Dryopteris dilatata	15.6
<i>Constant species (occurrence frequencies)</i>			
Salix caprea	59.0	Rubus fruticosus aggr.	53.0
Sorbus aucuparia	51.0	Quercus robur	44.0
Urtica dioica	38.0	Rubus idaeus	33.0
Betula pendula	33.0	Hedera helix	32.0
Dryopteris dilatata	32.0	Corylus avellana	29.0
Athyrium filix-femina	27.0	Vaccinium myrtillus	24.0
Fagus sylvatica	24.0	Oxalis acetosella	23.0
Lonicera periclymenum	23.0	Avenella flexuosa	23.0
Dryopteris carthusiana	22.0	Picea abies	21.0
Fraxinus excelsior	21.0	Dryopteris filix-mas	21.0
Sambucus nigra	19.0	Frangula alnus	19.0
Dactylis glomerata	19.0	Ranunculus repens	18.0
Pteridium aquilinum	18.0	Crataegus monogyna	18.0
Acer pseudoplatanus	18.0	Juncus effusus	17.0
Ilex aquifolium	17.0	Geranium robertianum	17.0
Galium aparine	17.0	Angelica sylvestris	17.0
Fragaria vesca	16.0	Sambucus racemosa	14.0
Populus tremula	14.0	Epilobium angustifolium	14.0
Senecio nemorensis aggr.	13.0	Polytrichastrum formosum	13.0
Pinus sylvestris	13.0	Deschampsia cespitosa	13.0
Thuidium tamariscinum	12.0	Solidago virgaurea	12.0
Prunus spinosa	12.0	Molinia caerulea aggr.	12.0
Heracleum sphondylium	12.0	Betula pubescens	12.0
Rosa canina aggr.	11.0	Geum urbanum	11.0
Epilobium montanum	11.0	Agrostis capillaris	11.0
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Salix caprea	54.0	Sorbus aucuparia	43.0
Rubus fruticosus aggr.	26.0	Hedera helix	13.0
Quercus robur	9.0	Urtica dioica	8.0
Pinus sylvestris	7.0	Betula pendula	7.0

Vaccinium myrtillus	6.0	Sambucus racemosa	6.0
Corylus avellana	6.0		

S41 - [F41] Wet heath

*Diagnostic species (phi coefficient * 100)*

Erica tetralix	56.2	Juncus squarrosus	28.2
Sphagnum compactum	26.6	Trichophorum cespitosum	25.8
Calluna vulgaris	25.1	Molinia caerulea aggr.	24.0
Drosera intermedia	19.7	Drosera rotundifolia	18.3
Cladonia portentosa	17.9	Gentiana pneumonanthe	17.8
Rhynchospora fusca	17.3	Gymnocolea inflata	17.3
Narthecium ossifragum	16.9		

Constant species (occurrence frequencies)

Erica tetralix	89.0	Calluna vulgaris	80.0
Molinia caerulea aggr.	75.0	Potentilla erecta	37.0
Trichophorum cespitosum	35.0	Eriophorum angustifolium	28.0
Juncus squarrosus	27.0	Drosera rotundifolia	27.0
Sphagnum compactum	18.0	Pinus sylvestris	17.0
Hypnum jutlandicum	16.0	Hypnum cupressiforme	16.0
Betula pubescens	16.0	Carex panicea	15.0
Salix repens	14.0	Narthecium ossifragum	14.0
Nardus stricta	14.0	Cladonia portentosa	14.0
Dicranum scoparium	13.0	Pleurozium schreberi	12.0
Eriophorum vaginatum	12.0	Drosera intermedia	12.0
Carex nigra	12.0	Gentiana pneumonanthe	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Erica tetralix	79.0	Calluna vulgaris	26.0
Molinia caerulea aggr.	22.0		

S42 - [F42] Dry heath

*Diagnostic species (phi coefficient * 100)*

Calluna vulgaris	27.5	Erica cinerea	18.6
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Constant species (occurrence frequencies)

Calluna vulgaris	84.0	Avenella flexuosa	40.0
Vaccinium myrtillus	38.0	Pleurozium schreberi	31.0
Potentilla erecta	28.0	Dicranum scoparium	27.0
Vaccinium vitis-idaea	20.0	Molinia caerulea aggr.	20.0
Erica cinerea	20.0	Agrostis capillaris	20.0
Festuca ovina	18.0	Pinus sylvestris	17.0
Nardus stricta	17.0	Hypnum jutlandicum	17.0
Danthonia decumbens	16.0	Hypnum cupressiforme	15.0

Erica tetralix	15.0	Hylocomium splendens	14.0
Carex pilulifera	14.0	Anthoxanthum odoratum aggr.	14.0
Empetrum nigrum aggr.	13.0	Galium saxatile	12.0
Eriophorum vaginatum	12.0	Betula pendula	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Calluna vulgaris	68.0	Vaccinium myrtillus	17.0
Pleurozium schreberi	8.0	Hypnum jutlandicum	6.0
Erica cinerea	6.0		

S43 - [F43] Macaronesian heath

*Diagnostic species (phi coefficient * 100)*

Huperzia dentata	68.1	Thymus caespititius	67.9
Holcus rigidus	67.9	Vaccinium cylindraceum	62.9
Luzula elegans	57.4	Tolpis azorica	51.4
Agrostis castellana	48.6	Blechnum spicant	47.4
Lysimachia azorica	44.5	Lycopodiella cernua	44.5
Leontodon filii	44.5	Hypericum foliosum	44.5
Daboecia azorica	44.5	Centaurium scilloides	44.1
Erica scoparia	43.7	Leontodon rigens	36.4
Frangula azorica	36.2	Pittosporum undulatum	36.1
Juniperus brevifolia	36.0	Deschampsia foliosa	36.0
Morella faya	33.5	Silene uniflora	25.7
Hedychium gardnerianum	25.7	Carex peregrina	25.7
Platanthera micrantha	25.6	Hedera azorica	25.4
Calluna vulgaris	24.9	Frullania tamarisci	23.1
Lotus parviflorus	23.0	Hypericum humifusum	22.7
Osmunda regalis	22.2	Sibthorpia europaea	21.4
Lobelia urens	19.0	Lotus pedunculatus	17.9
Carex demissa	17.8	Potentilla anglica	17.7
Viburnum tinus	16.5	Potentilla erecta	15.0

Constant species (occurrence frequencies)

Calluna vulgaris	80.0	Blechnum spicant	67.0
Potentilla erecta	53.0	Thymus caespititius	47.0
Huperzia dentata	47.0	Holcus rigidus	47.0
Erica scoparia	47.0	Vaccinium cylindraceum	40.0
Agrostis castellana	40.0	Luzula elegans	33.0
Lotus pedunculatus	33.0	Tolpis azorica	27.0
Hypochaeris radicata	27.0	Lysimachia azorica	20.0
Lycopodiella cernua	20.0	Leontodon filii	20.0
Hypericum foliosum	20.0	Daboecia azorica	20.0
Centaurium scilloides	20.0	Anthoxanthum odoratum aggr.	20.0
Viburnum tinus	13.0	Rubia peregrina	13.0
Pteridium aquilinum	13.0	Pittosporum undulatum	13.0
Osmunda regalis	13.0	Morella faya	13.0

Leontodon rigens	13.0	Juniperus brevifolia	13.0
Hypericum humifusum	13.0	Holcus lanatus	13.0
Frullania tamarisci	13.0	Frangula azorica	13.0
Deschampsia foliosa	13.0	Danthonia decumbens	13.0
Carex pilulifera	13.0	Carex demissa	13.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Calluna vulgaris	67.0	Thymus caespititius	13.0
Frullania tamarisci	13.0	Erica scoparia	13.0
Erica arborea	7.0	Daboecia azorica	7.0

S51 - [F51] Mediterranean maquis and arborescent matorral

*Diagnostic species (phi coefficient * 100)*

Pistacia lentiscus	37.3	Juniperus phoenicea	34.7
Erica arborea	31.3	Myrtus communis	28.7
Arbutus unedo	26.2	Smilax aspera	26.1
Juniperus oxycedrus	25.7	Cistus salviifolius	24.1
Asparagus acutifolius	24.0	Phillyrea latifolia	23.6
Cistus monspeliensis	23.1	Phillyrea angustifolia	22.5
Calicotome villosa	22.1	Brachypodium retusum	21.5
Rubia peregrina	21.3	Lonicera implexa	21.2
Rhamnus alaternus	21.1	Prasium majus	21.0
Cistus creticus	18.1	Daphne gnidium	17.0
Olea europaea	16.8	Quercus ilex	16.6
Calicotome spinosa	16.6	Arisarum vulgare	16.4
Rosmarinus officinalis	15.5		

Constant species (occurrence frequencies)

Pistacia lentiscus	46.0	Rubia peregrina	43.0
Erica arborea	38.0	Smilax aspera	34.0
Asparagus acutifolius	33.0	Juniperus oxycedrus	31.0
Arbutus unedo	29.0	Juniperus phoenicea	28.0
Brachypodium retusum	28.0	Phillyrea latifolia	26.0
Cistus salviifolius	25.0	Quercus ilex	24.0
Myrtus communis	23.0	Rhamnus alaternus	21.0
Phillyrea angustifolia	21.0	Rubus ulmifolius	19.0
Lonicera implexa	19.0	Cistus monspeliensis	18.0
Pinus halepensis	15.0	Daphne gnidium	15.0
Rosmarinus officinalis	14.0	Olea europaea	14.0
Calicotome villosa	14.0	Dactylis glomerata	13.0
Clematis flammula	13.0	Cistus creticus	13.0
Prasium majus	12.0	Arisarum vulgare	12.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Erica arborea	24.0	Juniperus phoenicea	21.0
Juniperus oxycedrus	15.0	Arbutus unedo	12.0

Myrtus communis	10.0	Pistacia lentiscus	8.0
Phillyrea latifolia	6.0	Calicotome villosa	6.0

S52 - [F53] Submediterranean pseudomaquis

*Diagnostic species (phi coefficient * 100)*

Buxus sempervirens	51.8	Juniperus phoenicea	28.6
Amelanchier ovalis	28.1	Thymus vulgaris	26.2
Juniperus oxycedrus	19.0	Rubia peregrina	18.8
Phillyrea latifolia	18.3	Paliurus spina-christi	18.2
Genista scorpius	18.2	Aphyllanthes monspeliensis	18.1
Pistacia terebinthus	17.8	Quercus ilex	17.3
Quercus pubescens	17.2	Rhamnus alaternus	17.0
Genista hispanica	15.8	Lavandula latifolia	15.7
Rhamnus saxatilis	15.4	Teucrium chamaedrys	15.2

Constant species (occurrence frequencies)

Buxus sempervirens	73.0	Rubia peregrina	39.0
Amelanchier ovalis	34.0	Quercus pubescens	33.0
Thymus vulgaris	32.0	Teucrium chamaedrys	32.0
Quercus ilex	26.0	Juniperus phoenicea	24.0
Juniperus communis subsp. communis	24.0	Juniperus oxycedrus	23.0
Crataegus monogyna	21.0	Phillyrea latifolia	20.0
Hedera helix	20.0	Asparagus acutifolius	20.0
Ruscus aculeatus	18.0	Rhamnus alaternus	18.0
Fraxinus ornus	17.0	Aphyllanthes monspeliensis	17.0
Genista scorpius	16.0	Pistacia terebinthus	15.0
Hippocrepis emerus	15.0	Rubus ulmifolius	14.0
Carex humilis	14.0	Smilax aspera	13.0
Rosa canina aggr.	13.0	Erica arborea	13.0
Corylus avellana	13.0	Bromopsis erecta	13.0
Genista hispanica	12.0	Dioscorea communis	12.0
Dactylis glomerata	12.0	Clematis flammula	12.0
Sorbus aria aggr.	11.0	Quercus rotundifolia	11.0
Lavandula latifolia	11.0	Hepatica nobilis	11.0
Cornus sanguinea	11.0	Carex halleriana	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Buxus sempervirens	70.0	Paliurus spina-christi	7.0
Juniperus phoenicea	7.0	Erica arborea	7.0

S53 - [F54] Spartium junceum scrub

*Diagnostic species (phi coefficient * 100)*

Spartium junceum	86.2	Rubus ulmifolius	32.4
Brachypodium rupestre	29.4	Asparagus acutifolius	28.3

Clematis flammula	26.0	Osyris alba	25.5
Bituminaria bituminosa	24.1	Dittrichia viscosa	23.5
Clematis vitalba	23.3	Foeniculum vulgare	21.7
Dorycnium hirsutum	20.1	Rubia peregrina	19.7
Quercus pubescens	19.2	Paliurus spina-christi	18.6
Colutea arborescens	17.9	Clinopodium nepeta	17.4
Pyrus spinosa	17.3	Lathyrus latifolius	17.1
Fraxinus ornus	16.8	Coriaria myrtifolia	16.5
Carlina corymbosa	16.5	Rosa agrestis	16.3
Rosa sempervirens	15.6	Rosa canina aggr.	15.6
Helichrysum italicum	15.4	Arundo plinii	15.4
Sixalix atropurpurea	15.2		
<i>Constant species (occurrence frequencies)</i>			
Spartium junceum	100.0	Rubus ulmifolius	62.0
Dactylis glomerata	42.0	Clematis vitalba	42.0
Rubia peregrina	40.0	Asparagus acutifolius	40.0
Crataegus monogyna	37.0	Quercus pubescens	36.0
Rosa canina aggr.	34.0	Brachypodium rupestre	33.0
Prunus spinosa	30.0	Cornus sanguinea	27.0
Clematis flammula	24.0	Teucrium chamaedrys	23.0
Fraxinus ornus	23.0	Osyris alba	21.0
Ligustrum vulgare	19.0	Bituminaria bituminosa	19.0
Sanguisorba minor	17.0	Dittrichia viscosa	17.0
Ulmus minor	14.0	Rhamnus alaternus	14.0
Pistacia lentiscus	14.0	Lonicera etrusca	14.0
Juniperus oxycedrus	14.0	Bromopsis erecta	14.0
Brachypodium phoenicoides	14.0	Rosa sempervirens	13.0
Juniperus communis subsp. communis	13.0	Hippocrepis emerus	13.0
Hedera helix	13.0	Foeniculum vulgare	13.0
Dorycnium hirsutum	13.0	Dioscorea communis	13.0
Daucus carota	13.0	Rubus fruticosus aggr.	12.0
Eryngium campestre	12.0	Carlina corymbosa	12.0
Brachypodium pinnatum	12.0	Helichrysum italicum	11.0
Cytisophyllum sessilifolium	11.0	Clinopodium nepeta	11.0
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Spartium junceum	100.0	Brachypodium rupestre	6.0

S54 - [F55] Thermomediterranean arid scrub

*Diagnostic species (phi coefficient * 100)*

Euphorbia dendroides	88.4	Prasium majus	55.6
Pistacia lentiscus	53.0	Olea europaea	51.4
Teucrium fruticans	48.7	Arisarum vulgare	48.7
Hyparrhenia hirta	47.3	Asparagus albus	46.2
Chamaerops humilis	42.6	Asphodelus ramosus	41.2

Ruta chalepensis	39.5	Calicotome villosa	39.4
Ampelodesmos mauritanicus	39.4	Phagnalon saxatile	37.3
Ferula communis	37.1	Asparagus acutifolius	36.9
Periploca angustifolia	35.8	Micromeria graeca	35.2
Bituminaria bituminosa	31.6	Drimia pancration	31.4
Artemisia arborescens	29.0	Teucrium flavum	28.9
Ceratonia siliqua	26.6	Anagyris foetida	26.5
Rhamnus alaternus	22.9	Brachypodium retusum	22.2
Phlomis fruticosa	21.6	Smilax aspera	21.5
Asparagus horridus	20.7	Ruta angustifolia	20.3
Thapsia garganica	20.1	Jacobaea maritima	20.1
Allium subhirsutum	20.0	Thymbra capitata	19.9
Stachys glutinosa	19.9	Coronilla valentina	19.7
Rubia peregrina	18.4	Lonicera implexa	18.3
Cistus monspeliensis	17.8	Myrtus communis	17.6
Juniperus phoenicea	17.5	Lobularia maritima	17.4
Lycium intricatum	17.3	Lagoecia cuminoides	17.2
Piptatherum miliaceum	17.0	Andropogon distachyos	16.8
Clematis cirrhosa	16.5	Valantia hispida	16.4
Medicago coronata	16.4	Genista corsica	16.3
Ephedra fragilis	16.2	Matthiola incana	15.9
Narcissus tazetta	15.7	Carlina corymbosa	15.7
Carlina sicula	15.5	Pistacia terebinthus	15.4
Ephedra foeminea	15.4	Teucrium marum	15.3
Salvia fruticosa	15.0		
<i>Constant species (occurrence frequencies)</i>			
Euphorbia dendroides	86.0	Pistacia lentiscus	72.0
Olea europaea	54.0	Asparagus acutifolius	54.0
Prasium majus	46.0	Arisarum vulgare	45.0
Rubia peregrina	38.0	Asphodelus ramosus	37.0
Hyparrhenia hirta	34.0	Dactylis glomerata	32.0
Teucrium fruticans	30.0	Calicotome villosa	30.0
Brachypodium retusum	30.0	Smilax aspera	29.0
Chamaerops humilis	28.0	Bituminaria bituminosa	26.0
Asparagus albus	26.0	Ampelodesmos mauritanicus	25.0
Rhamnus alaternus	24.0	Micromeria graeca	22.0
Phagnalon saxatile	21.0	Ruta chalepensis	20.0
Ferula communis	18.0	Lonicera implexa	17.0
Teucrium flavum	15.0	Periploca angustifolia	15.0
Phillyrea latifolia	14.0	Myrtus communis	14.0
Juniperus phoenicea	14.0	Cistus monspeliensis	14.0
Ceratonia siliqua	14.0	Rosmarinus officinalis	13.0
Pistacia terebinthus	13.0	Piptatherum miliaceum	11.0
Drimia pancration	11.0	Carlina corymbosa	11.0
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Euphorbia dendroides	78.0	Periploca angustifolia	14.0

Pistacia lentiscus	11.0	Chamaerops humilis	11.0
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S61 - [F61a] Western basiphilous garrigue

*Diagnostic species (phi coefficient * 100)*

Genista scorpius	50.9	Thymus vulgaris	48.0
Lavandula latifolia	43.8	Coris monspeliensis	42.2
Aphyllanthes monspeliensis	42.2	Coronilla minima	41.1
Rosmarinus officinalis	38.2	Linum suffruticosum aggr.	37.0
Helictochloa bromoides	36.5	Koeleria vallesiana	36.4
Brachypodium retusum	32.4	Argyrolobium zanonii	32.4
Fumana thymifolia	32.3	Fumana ericoides	32.1
Bupleurum frutescens	31.9	Genista hispanica	31.3
Dorycnium pentaphyllum	30.3	Atractylis humilis	30.0
Lithodora fruticosa	28.6	Staehelina dubia	28.0
Rhaponticum coniferum	28.0	Erica multiflora	27.8
Pinus halepensis	27.7	Helianthemum marifolium	26.9
Ononis minutissima	26.8	Teucrium polium aggr.	26.7
Helichrysum stoechas	26.7	Fumana procumbens	26.6
Fumana ericifolia	25.5	Helianthemum italicum	25.3
Cistus clusii	25.2	Globularia alypum	24.5
Helianthemum violaceum	24.0	Carex halleriana	23.8
Linum narbonense	22.7	Santolina chamaecyparissus aggr.	22.3
Helianthemum cinereum	21.7	Catananche caerulea	21.7
Hippocrepis glauca	21.6	Thymelaea tinctoria	21.3
Stipa offneri	21.1	Thesium divaricatum	21.0
Cistus albidus	21.0	Ononis fruticosa	20.9
Helianthemum apenninum	20.9	Quercus coccifera	20.2
Thymelaea ruizii	20.1	Carthamus carduncellus	20.1
Helianthemum syriacum	19.8	Euphorbia flavicoma	19.6
Astragalus monspessulanus	19.4	Anthyllis cytisoides	19.1
Globularia bisnagarica	19.0	Hedysarum boveanum	18.9
Stipa juncea	18.8	Ulex parviflorus	18.7
Juniperus oxycedrus	18.6	Orobanche latisquama	18.0
Echinops ritro	17.9	Sedum sediforme	17.8
Lavandula angustifolia	17.8	Helictotrichon cantabricum	17.5
Helianthemum canum	17.2	Inula montana	17.1
Erica vagans	17.1	Centaurea linifolia	17.1
Polygala rupestris	16.9	Helictochloa pratensis	16.2
Helianthemum hirtum	16.1	Euphorbia minuta	16.1
Convolvulus lanuginosus	16.1	Astragalus incanus	15.8
Salvia officinalis	15.7	Ononis pusilla	15.5
Galium corrudifolium	15.2		

Constant species (occurrence frequencies)

Thymus vulgaris	61.0	Genista scorpius	51.0
Brachypodium retusum	44.0	Aphyllanthes monspeliensis	43.0

Coronilla minima	40.0	Dorycnium pentaphyllum	39.0
Rosmarinus officinalis	38.0	Koeleria vallesiana	38.0
Lavandula latifolia	36.0	Teucrium polium aggr.	29.0
Pinus halepensis	29.0	Helictochloa bromoides	28.0
Coris monspeliensis	28.0	Linum suffruticosum aggr.	27.0
Carex halleriana	27.0	Bromopsis erecta	26.0
Teucrium chamaedrys	25.0	Genista hispanica	25.0
Eryngium campestre	25.0	Juniperus oxycedrus	23.0
Helichrysum stoechas	23.0	Argyrolobium zanonii	23.0
Fumana procumbens	22.0	Quercus coccifera	21.0
Staehelina dubia	20.0	Fumana thymifolia	20.0
Asperula cynanchica	20.0	Sanguisorba minor	19.0
Carex humilis	19.0	Buxus sempervirens	19.0
Pilosella officinarum	18.0	Ononis minutissima	18.0
Helictochloa pratensis	18.0	Fumana ericoides	18.0
Rhaponticum coniferum	17.0	Bupleurum frutescens	17.0
Potentilla tabernaemontani	16.0	Juniperus communis subsp. communis	16.0
Globularia bisnagarica	16.0	Erica multiflora	16.0
Helianthemum italicum	15.0	Cistus albidus	15.0
Sedum sediforme	14.0	Helianthemum apenninum	14.0
Dactylis glomerata	14.0	Carex flacca	14.0
Lotus corniculatus	13.0	Lavandula angustifolia	13.0
Helianthemum canum	13.0	Fumana ericifolia	13.0
Catananche caerulea	13.0	Brachypodium phoenicoides	13.0
Atractylis humilis	13.0	Astragalus monspessulanus	13.0
Anthyllis vulneraria	13.0	Lithodora fruticosa	12.0
Hippocrepis comosa	12.0	Erica vagans	12.0
Brachypodium rupestre	12.0	Ulex parviflorus	11.0
Teucrium montanum	11.0	Scabiosa columbaria	11.0
Globularia alypum	11.0	Echinops ritro	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Genista hispanica	17.0	Rosmarinus officinalis	16.0
Genista scorpius	12.0	Thymus vulgaris	10.0
Erica multiflora	10.0	Lavandula angustifolia	5.0
Brachypodium retusum	5.0		

S62 - [F61b] Western acidophilous garrigue

*Diagnostic species (phi coefficient * 100)*

Cytinus hypocistis	56.7	Cistus ladanifer	53.9
Helichrysum italicum	53.4	Lavandula pedunculata	53.1
Cistus halimifolius	47.1	Lavandula stoechas	42.8
Thapsia villosa	42.5	Erica australis	41.9
Thymus mastichina	40.8	Cistus calycinus	40.7
Cistus salviifolius	37.8	Erophaca baetica	37.4
Genista hirsuta	36.5	Ulex genistoides	36.2

Erica umbellata	34.9	Pinus pinea	33.9
Daphne gnidium	32.4	Tuberaria guttata	32.0
Ulex parviflorus	29.6	Cistus populifolius	27.8
Quercus rotundifolia	27.6	Genista tridentata	27.6
Cistus ocymoides	27.0	Drimia maritima	26.9
Cytisus striatus	26.5	Rosmarinus officinalis	26.3
Armeria velutina	26.0	Cistus umbellatus	25.2
Cytisus multiflorus	25.0	Carlina corymbosa	24.0
Thymus albicans subsp. donyanae	23.4	Andryala integrifolia	23.0
Hypericum linarifolium	22.8	Tuberaria lignosa	22.6
Briza maxima	22.2	Cistus libanotis	21.4
Glandora prostrata	21.3	Crucianella angustifolia	20.8
Corema album	20.8	Tolpis barbata	20.2
Cistus psilosepalus	20.1	Cistus crispus	20.1
Cytisus grandiflorus	20.0	Cistus monspeliensis	20.0
Retama sphaerocarpa	19.8	Micropyrum tenellum	19.8
Thymus capitellatus	19.2	Asterolinon linum-stellatum	19.2
Loeflingia baetica	19.0	Genista tournefortii	19.0
Phillyrea angustifolia	18.3	Teucrium marum	17.9
Aira caryophyllea	17.9	Anemone palmata	17.8
Narcissus triandrus	17.6	Malcolmia triloba	17.6
Neoschischkinia reuteri	16.7	Neotinea lactea	16.4
Neoschischkinia elegans	16.3	Crocus carpetanus	16.3
Prolongoa hispanica	16.2	Anarrhinum bellidifolium	16.1
Quercus suber	15.9	Jacobaea minuta	15.8
Helichrysum italicum subsp. picardii	15.8	Thymus zygis	15.7
Senecio lividus	15.6	Pinus pinaster	15.6
Cistus lasianthus	15.6	Valerianella eriocarpa	15.4
Sedum forsterianum	15.2	Fritillaria lusitanica	15.2
Lotus glareosus	15.1	Filago gallica	15.1
<i>Constant species (occurrence frequencies)</i>			
Helichrysum italicum	50.0	Cistus salviifolius	43.0
Lavandula pedunculata	39.0	Cistus ladanifer	39.0
Cytinus hypocistis	36.0	Lavandula stoechas	34.0
Daphne gnidium	31.0	Thapsia villosa	26.0
Rosmarinus officinalis	26.0	Cistus halimifolius	26.0
Tuberaria guttata	24.0	Thymus mastichina	24.0
Quercus rotundifolia	24.0	Erica australis	24.0
Dactylis glomerata	21.0	Ulex parviflorus	20.0
Pinus pinea	20.0	Cistus calycinus	19.0
Carlina corymbosa	19.0	Pistacia lentiscus	17.0
Pinus pinaster	17.0	Phillyrea angustifolia	17.0
Erica umbellata	17.0	Drimia maritima	17.0
Brachypodium retusum	17.0	Juniperus oxycedrus	16.0
Genista hirsuta	16.0	Erophaca baetica	16.0
Cistus monspeliensis	16.0	Calluna vulgaris	16.0
Briza maxima	16.0	Ulex genistoides	14.0

Rubia peregrina	14.0	Erica arborea	14.0
Arbutus unedo	14.0	Aira caryophyllea	14.0
Andryala integrifolia	13.0	Quercus suber	11.0
Pinus halepensis	11.0	Genista tridentata	11.0
Erica scoparia	11.0	Cytisus striatus	11.0
Cistus populifolius	11.0	Asterolinon linum-stellatum	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Cistus ladanifer	34.0	Cistus halimifolius	19.0
Ulex parviflorus	9.0	Cistus populifolius	7.0
Cistus calycinus	7.0	Teucrium marum	6.0

S63 - [F62] Eastern garrigue

*Diagnostic species (phi coefficient * 100)*

Phlomis fruticosa	55.2	Thymbra capitata	53.4
Erica manipuliflora	48.2	Calicotome villosa	45.4
Cistus creticus	42.9	Drimia maritima	42.1
Leontodon tuberosus	41.1	Phagnalon rupestre	40.4
Sarcopoterium spinosum	37.9	Genista acanthoclada	36.4
Satureja thymbra	36.1	Micromeria juliana	35.3
Asperula rigida	32.6	Valantia hispida	32.5
Tordylium apulum	31.9	Micromeria graeca	31.2
Teucrium microphyllum	31.1	Fumana thymifolia	30.9
Briza maxima	30.4	Allium rubrovittatum	30.4
Catapodium rigidum	30.3	Urospermum picroides	30.2
Fumana arabica	30.2	Filago aegaea	29.8
Anisantha fasciculata	29.3	Crepis neglecta	29.2
Muscari spreizenhoferi	28.5	Linum strictum aggr.	28.1
Asparagus aphyllus	28.1	Asphodelus ramosus	28.0
Hypochaeris achyrophorus	27.2	Gastridium phleoides	27.1
Galium murale	26.8	Lagoecia cuminoides	26.6
Daucus involucratus	26.6	Biscutella didyma	26.1
Salvia fruticosa	25.6	Hypericum empetrifolium	25.2
Crupina crupinastrum	25.2	Centaurea raphanina	25.1
Convolvulus althaeoides	25.0	Polygala venulosa	24.9
Asphodeline lutea	24.9	Cuscuta palaestina	24.0
Anthyllis hermanniae	24.0	Avena barbata	23.9
Ononis reclinata	23.6	Brachypodium retusum	23.4
Thesium humile	23.0	Trifolium infamia-ponertii	22.5
Crucianella latifolia	22.4	Cynosurus echinatus	22.3
Salvia officinalis	21.8	Helictotrichon convolutum	21.8
Avellinia festucoides	21.8	Euphorbia acanthothamnos	21.7
Cistus salviifolius	21.6	Carlina graeca	21.6
Thesium bergeri	21.3	Piptatherum coerulescens	21.3
Gagea graeca	21.3	Centaureum tenuiflorum	21.3
Cistus parviflorus	21.2	Quercus coccifera	20.8

Sideritis romana	20.7	Lamyropsis cynaroides	20.4
Scorpiurus muricatus	20.3	Paronychia macrosepala	20.2
Medicago coronata	20.1	Galium setaceum	20.1
Orlaya daucoides	19.6	Pistacia lentiscus	19.5
Teucrium brevifolium	19.4	Achnatherum bromoides	19.4
Teucrium flavum	19.2	Convolvulus oleifolius	19.1
Ebenus cretica	19.0	Trachynia distachya	18.9
Rostraria cristata	18.8	Phlomis cretica	18.8
Nigella damascena	18.6	Pyrus spinosa	18.5
Asparagus acutifolius	18.1	Scorzonera cretica	17.9
Linum trigynum	17.9	Euphorbia dendroides	17.9
Teucrium polium aggr.	17.7	Scaligeria napiformis	17.7
Euphorbia dimorphocaulon	17.6	Cytisus eriocarpus	17.6
Plantago bellardii	17.2	Genista sylvestris	17.2
Olea europaea	17.1	Atractylis cancellata	17.1
Tanacetum cinerariifolium	17.0	Anagallis arvensis	16.9
Trifolium uniflorum	16.8	Bromus intermedius	16.7
Paliurus spina-christi	16.5	Arisarum vulgare	16.5
Sonchus bulbosus	16.3	Carlina lanata	16.3
Allosorus acrosticus	16.3	Bituminaria bituminosa	16.2
Trifolium scabrum	16.1	Trifolium stellatum	16.0
Lotus ornithopodioides	16.0	Knautia integrifolia	15.9
Ampelodesmos mauritanicus	15.9	Micromeria cremnophila	15.8
Carlina gummifera	15.8	Phillyrea latifolia	15.7
Malva cretica	15.7	Carlina sicula	15.7
Bupleurum gracile	15.7	Eryngium creticum	15.6
Valerianella discoidea	15.5	Pallenis spinosa	15.5
Calendula suffruticosa	15.5	Sherardia arvensis	15.4
Daucus guttatus	15.4	Bellardia trixago	15.4
Aira elegantissima	15.4	Asterolinon linum-stellatum	15.3
Prasium majus	15.2	Asperula scutellaris	15.2
Genista sericea	15.1	Aegilops neglecta	15.1
Ononis verae	15.0		
<i>Constant species (occurrence frequencies)</i>			
Dactylis glomerata	53.0	Thymbra capitata	39.0
Phlomis fruticosa	37.0	Cistus creticus	37.0
Calicotome villosa	36.0	Brachypodium retusum	32.0
Drimia maritima	31.0	Erica manipuliflora	29.0
Phagnalon rupestre	25.0	Leontodon tuberosus	25.0
Catapodium rigidum	25.0	Asparagus acutifolius	25.0
Pistacia lentiscus	24.0	Cistus salviifolius	23.0
Briza maxima	23.0	Asphodelus ramosus	23.0
Anagallis arvensis	23.0	Quercus coccifera	22.0
Trifolium campestre	21.0	Sarcopoterium spinosum	21.0
Linum strictum aggr.	20.0	Fumana thymifolia	20.0
Teucrium polium aggr.	19.0	Avena barbata	19.0
Phillyrea latifolia	18.0	Micromeria graeca	18.0

Genista acanthoclada	18.0	Cynosurus echinatus	18.0
Micromeria juliana	17.0	Urospermum picroides	16.0
Satureja thymbra	16.0	Hypochaeris achyrophorus	16.0
Asparagus aphyllus	16.0	Valantia hispida	15.0
Tordylium apulum	15.0	Sherardia arvensis	15.0
Olea europaea	15.0	Crepis neglecta	14.0
Convolvulus althaeoides	14.0	Trachynia distachya	13.0
Poa bulbosa	13.0	Melica ciliata	13.0
Galium murale	13.0	Trifolium scabrum	12.0
Helichrysum stoechas	12.0	Bituminaria bituminosa	12.0
Asperula rigida	12.0	Arisarum vulgare	12.0
Arbutus unedo	12.0	Teucrium microphyllum	11.0
Rostraria cristata	11.0	Lagoecia cuminoidea	11.0
Juniperus oxycedrus	11.0	Hypericum empetrifolium	11.0
Fumana arabica	11.0	Filago aegaea	11.0
Anthyllis vulneraria	11.0	Anthyllis hermanniae	11.0
Anisantha fasciculata	11.0	Allium rubrovittatum	11.0
Achnatherum bromoides	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Phlomis fruticosa	33.0	Erica manipuliflora	25.0
Thymbra capitata	18.0	Calicotome villosa	6.0
Cytisus eriocarpus	5.0	Cistus salviifolius	5.0
Cistus creticus	5.0		

S64 - [F65] Macaronesian garrigue

*Diagnostic species (phi coefficient * 100)*

Micromeria hyssopifolia	74.7	Cistus monspeliensis	63.5
Cistus symphytifolius	52.2	Micromeria varia	47.4
Rubia fruticosa	46.2	Argyranthemum frutescens	42.2
Cytisus proliferus	41.5	Hyparrhenia hirta	41.2
Phagnalon saxatile	40.6	Euphorbia regis-jubae	40.2
Asteriscus sericeus	37.4	Aeonium holochrysum	37.4
Euphorbia berthelotii	37.2	Echium decaisnei	36.8
Globularia salicina	36.7	Artemisia thuscula	36.5
Kleinia neriifolia	34.0	Launaea arborescens	33.8
Bituminaria bituminosa	33.6	Trachynia distachya	31.1
Ferula lancerotensis	30.6	Pericallis lanata	30.4
Pericallis murrayi	30.3	Echium aculeatum	30.3
Echium virescens	30.2	Ifloga spicata	29.9
Asparagus umbellatus	29.8	Euphorbia lamarckii	29.7
Wahlenbergia lobelioides	29.4	Carlina salicifolia	29.3
Lavandula canariensis	29.2	Asphodelus ramosus	28.8
Andryala pinnatifida	28.8	Juniperus phoenicea	28.2
Pinus canariensis	27.4	Dittrichia viscosa	25.5
Stachys arvensis	23.1	Ononis pendula	21.7

Argyranthemum hierrense	21.7	Reichardia famarae	21.6
Pericallis steetzii	21.6	Echium hierrense	21.6
Ceropegia dichotoma	21.6	Argyranthemum callichrysum	21.6
Phagnalon umbelliforme	21.5	Descurainia millefolia	21.5
Allosorus fragilis	21.5	Tolpis laciniata	21.4
Argyranthemum foeniculaceum	21.4	Trisetaria loeflingiana	21.3
Bosea yervamora	21.3	Paronychia canariensis	21.2
Campanula dichotoma	21.1	Senecio incrassatus	20.8
Aeonium urbicum	20.8	Adenocarpus foliolosus	20.8
Lotus lancerottensis	20.6	Tuberaria guttata	20.5
Polycarpaea divaricata	20.5	Lotus sessilifolius	20.5
Juniperus cedrus	20.5	Ceropegia fusca	20.5
Sonchus acaulis	20.3	Lobularia canariensis	20.2
Hypericum canariense	19.9	Scilla haemorrhoidalis	19.8
Cuscuta planiflora	19.5	Matthiola incana	19.3
Ophioglossum lusitanicum	19.1	Plocama pendula	18.7
Schizogyne sericea	18.3	Astragalus pelecinus	18.2
Anisantha diandra	18.1	Opuntia ficus-indica	18.0
Silene gallica	17.9	Plantago lagopus	17.7
Morella faya	17.7	Lycium intricatum	17.6
Lamarckia aurea	17.6	Periploca angustifolia	17.3
Petrorhagia nanteuillii	16.7	Drimia maritima	16.3
Lagurus ovatus	15.0		
<i>Constant species (occurrence frequencies)</i>			
Cistus monspeliensis	67.0	Micromeria hyssopifolia	57.0
Hyparrhenia hirta	29.0	Cistus symphytifolius	29.0
Bituminaria bituminosa	29.0	Trachynia distachya	24.0
Rubia fruticosa	24.0	Phagnalon saxatile	24.0
Micromeria varia	24.0	Juniperus phoenicea	24.0
Asphodelus ramosus	24.0	Euphorbia regis-jubae	19.0
Dittrichia viscosa	19.0	Cytisus proliferus	19.0
Argyranthemum frutescens	19.0	Tuberaria guttata	14.0
Launaea arborescens	14.0	Kleinia neriifolia	14.0
Globularia salicina	14.0	Euphorbia berthelotii	14.0
Echium decaisnei	14.0	Asteriscus sericeus	14.0
Artemisia thuscula	14.0	Anagallis arvensis	14.0
Aeonium holochrysum	14.0		
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Cistus monspeliensis	62.0	Micromeria hyssopifolia	38.0
Echium decaisnei	14.0		
S65 - [F67] Mediterranean gypsum scrub			
<i>Diagnostic species (phi coefficient * 100)</i>			
Ononis tridentata	79.3	Helianthemum syriacum	77.6

Herniaria fruticosa	73.0	Helianthemum squamatum	70.7
Plantago albicans	62.6	Gypsophila struthium	58.0
Thymus vulgaris	53.7	Helichrysum stoechas	49.7
Atractylis humilis	49.7	Rosmarinus officinalis	49.5
Launaea pumila	48.0	Fumana ericoides	46.6
Brachypodium retusum	46.5	Genista scorpius	43.0
Stipa parviflora	42.3	Lygeum spartum	42.0
Reseda stricta	41.8	Koeleria vallesiana	41.2
Lepidium subulatum	40.0	Santolina chamaecyparissus aggr.	39.9
Coris monspeliensis	39.4	Cistus clusii	37.0
Sedum sediforme	32.6	Fumana thymifolia	32.6
Launaea fragilis	32.2	Teucrium polium aggr.	31.7
Linum suffruticosum aggr.	31.5	Odontites longiflora	31.0
Artemisia herba-alba	28.8	Matthiola fruticulosa	28.1
Helianthemum violaceum	27.8	Bupleurum fruticosum	26.6
Thymus zygis	25.5	Lithodora fruticosa	25.0
Thesium divaricatum	24.2	Helianthemum hirtum	24.2
Dipcadi serotinum	23.8	Sideritis pungens subsp. pungens	22.3
Helictochloa bromoides	22.2	Helianthemum cinereum	22.0
Centaurea linifolia	22.0	Stipa offneri	20.1
Helianthemum marifolium	19.7	Euphorbia serrata	19.4
Sideritis ilicifolia	18.6	Centaurea melitensis	18.6
Bombycilaena discolor	18.2	Astragalus incanus	17.9
Fumana hispidula	17.6	Sideritis tragoriganum	17.4
Macrochloa tenacissima	17.3	Thapsia villosa	16.8
Sideritis spinulosa	16.8	Centaurea aspera	16.7
Hedysarum boveanum	16.5	Erucastrum nasturtiifolium	16.5
Teucrium expassum	16.2	Helianthemum canum	16.2
Ephedra major	16.2	Atriplex rosea	16.2
Retama sphaerocarpa	16.1	Pinus halepensis	16.0
Asperula aristata	16.0	Asterolinon linum-stellatum	15.7
<i>Constant species (occurrence frequencies)</i>			
Thymus vulgaris	73.0	Brachypodium retusum	67.0
Ononis tridentata	64.0	Helianthemum syriacum	64.0
Rosmarinus officinalis	55.0	Herniaria fruticosa	55.0
Helichrysum stoechas	51.0	Helianthemum squamatum	51.0
Plantago albicans	45.0	Koeleria vallesiana	45.0
Genista scorpius	44.0	Teucrium polium aggr.	36.0
Gypsophila struthium	35.0	Fumana ericoides	33.0
Atractylis humilis	31.0	Sedum sediforme	29.0
Coris monspeliensis	27.0	Santolina chamaecyparissus aggr.	24.0
Linum suffruticosum aggr.	24.0	Launaea pumila	24.0
Lygeum spartum	22.0	Fumana thymifolia	22.0
Stipa parviflora	20.0	Reseda stricta	18.0
Dactylis glomerata	18.0	Cistus clusii	18.0
Pinus halepensis	16.0	Lepidium subulatum	16.0
Helictochloa bromoides	16.0	Bupleurum fruticosum	15.0

Thesium divaricatum	13.0	Launaea fragilis	13.0
Helianthemum canum	13.0	Thymus zygis	11.0
Odontites longiflora	11.0	Matthiola fruticulosa	11.0
Lithodora fruticosa	11.0	Helianthemum violaceum	11.0
Euphorbia serrata	11.0	Artemisia herba-alba	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Ononis tridentata	31.0	Rosmarinus officinalis	16.0
Brachypodium retusum	9.0	Gypsophila struthium	7.0
Macrochloa tenacissima	5.0		

S66 - [F68a] Mediterranean halo-nitrophilous scrub

*Diagnostic species (phi coefficient * 100)*

Salsola vermiculata	73.0	Artemisia herba-alba	56.2
Launaea arborescens	47.5	Atriplex halimus	38.8
Camphorosma monspeliaca	38.2	Lycium intricatum	37.9
Suaeda vermiculata	34.0	Artemisia arborescens	31.5
Anisantha rubens	31.0	Suaeda vera	30.6
Peganum harmala	27.2	Bassia tomentosa	27.0
Cenchrus ciliaris	26.9	Asphodelus fistulosus	26.6
Lygeum spartum	26.3	Plantago lagopus	25.7
Fagonia cretica	25.3	Suaeda ifniensis	24.1
Frankenia laevis	23.8	Salsola oppositifolia	23.5
Bupleurum semicompositum	23.0	Polycarpha nivea	22.6
Carduus tenuiflorus	21.3	Marrubium vulgare	20.9
Salsola tetrandra	20.7	Hordeum murinum subsp. leporinum	20.6
Tricholaena teneriffae	20.0	Heliotropium crispum	19.8
Centaurea melitensis	19.8	Aizoon canariense	19.8
Capparis sicula	19.7	Asparagus horridus	19.6
Nicotiana glauca	19.0	Rostraria cristata	18.7
Eruca vesicaria	18.2	Spergularia diandra	18.1
Plocama pendula	18.1	Schizogyne sericea	17.6
Tetrapogon villosus	17.0	Notoceras bicorne	17.0
Hyoseris taurina	17.0	Euphorbia dendroides	17.0
Acuston lunarioides	17.0	Stipa parviflora	16.9
Volutaria lippii	16.7	Delphinium gracile	16.6
Asparagus albus	16.6	Lycium schweinfurthii	16.4
Lycium afrum	16.4	Salsola aegaea	16.2
Brassica cretica	16.2	Kleinia neriifolia	16.1
Plantago albicans	16.0	Lotus lancerottensis	16.0
Frankenia thymifolia	15.9	Forsskaolea angustifolia	15.8
Serapias parviflora	15.7	Malva aegyptia	15.7
Cenchrus setaceus	15.1		

Constant species (occurrence frequencies)

Salsola vermiculata	55.0	Artemisia herba-alba	34.0
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Launaea arborescens	25.0	Eryngium campestre	19.0
Camphorosma monspeliaca	19.0	Atriplex halimus	18.0
Lycium intricatum	16.0	Anisantha rubens	16.0
Suaeda vera	15.0	Plantago lagopus	15.0
Hordeum murinum subsp. leporinum	13.0	Suaeda vermiculata	12.0
Artemisia arborescens	12.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Salsola vermiculata	21.0	Artemisia herba-alba	15.0
Launaea arborescens	9.0	Camphorosma monspeliaca	7.0
Suaeda vermiculata	6.0		

S67 - [F68b] Aralo-Caspian semi-desert

*Diagnostic species (phi coefficient * 100)*

Eremopyrum orientale	83.0	Artemisia lerchiana	80.4
Alyssum turkestanicum	78.1	Eremopyrum triticeum	73.3
Medicago orthoceras	69.7	Alhagi maurorum	63.9
Ceratocarpus arenarius	60.9	Ceratocephala falcata	56.7
Meniscus linifolius	55.0	Medicago medicaginoides	49.2
Neotorularia contortuplicata	45.8	Agropyron fragile	45.4
Bromus squarrosus	43.1	Salsola dendroides	41.7
Anabasis aphylla	41.5	Petrosimonia brachiata	41.2
Poa bulbosa	40.7	Camphorosma monspeliaca	40.5
Salsola tragus	40.2	Bassia prostrata	39.5
Holosteum umbellatum	38.1	Xanthoparmelia rysssolea	37.2
Leymus ramosus	35.6	Artemisia scoparia	35.6
Androsace maxima	34.9	Anisantha tectorum	34.6
Lepidium perfoliatum	34.5	Artemisia taurica	33.7
Podospermum canum	32.9	Anabasis salsa	32.4
Lappula patula	32.1	Xanthoparmelia camtschadalis	31.8
Lappula marginata	31.5	Chorispora tenella	31.1
Astragalus testiculatus	31.0	Agropyron desertorum	30.7
Xanthoria parietina	30.0	Descurainia sophia	28.3
Nonea caspica	26.4	Iris scariosa	26.4
Astragalus dolichophyllus	26.3	Rinodina exigua	26.2
Glycyrrhiza glabra	26.2	Buglossoides arvensis	26.2
Stipa sareptana	25.6	Rochelia disperma	25.3
Ranunculus oxyspermus	25.0	Tanacetum achilleifolium	24.8
Senecio glaucus	24.8	Petrosimonia oppositifolia	24.3
Peganum harmala	23.6	Bassia sedoides	23.2
Atriplex aucheri	22.9	Tulipa sylvestris	21.1
Carduus uncinatus	20.9	Veronica triphyllos	19.1
Alyssum dasycarpum	18.7	Calligonum aphyllum	18.6
Candelariella efflorescens	18.5	Atraphaxis spinosa	18.5
Astragalus longipetalus	18.5	Tragopogon ruber	18.4
Diplomma alboatrum	18.3	Xanthoria polycarpa	18.2

Climacoptera brachiata	18.2	Filago arvensis	18.0
Ferula caspica	18.0	Caloplaca pyracea	18.0
Petrosimonia litwinowii	17.9	Lecanora hagenii	17.9
Helianthus lenticularis	17.9	Climacoptera crassa	17.9
Erodium hoefftianum	17.6	Zygophyllum fabago	17.4
Prangos odontalgica	17.4	Limonium suffruticosum	17.4
Physcia adscendens	17.2	Caloplaca lobulata	17.2
Artemisia pauciflora	16.8	Pterygoneurum subsessile	16.7
Syntrichia ruralis	16.6	Sibbaldianthe bifurca	16.5
Dodartia orientalis	16.4	Pterygoneurum ovatum	16.3
Cynanchum acutum	16.2	Suaeda altissima	16.1
Atriplex tatarica	16.1	Aeluropus pungens	16.1
Tamarix ramosissima	15.3	Collema tenax	15.3
Atriplex micrantha	15.2	Elaeagnus angustifolia	15.1
Suaeda acuminata	15.0		

Constant species (occurrence frequencies)

Eremopyrum orientale	71.0	Alyssum turkestanicum	71.0
Artemisia lerchiana	68.0	Poa bulbosa	57.0
Eremopyrum triticeum	57.0	Medicago orthoceras	50.0
Alhagi maurorum	43.0	Ceratocarpus arenarius	39.0
Bromus squarrosus	39.0	Ceratocephala falcata	36.0
Meniocus linifolius	32.0	Anisantha tectorum	32.0
Holosteum umbellatum	29.0	Medicago medicaginoides	25.0
Salsola tragus	21.0	Neotorularia contortuplicata	21.0
Descurainia sophia	21.0	Camphorosma monspeliaca	21.0
Buglossoides arvensis	21.0	Bassia prostrata	21.0
Agropyron fragile	21.0	Salsola dendroides	18.0
Podospermum canum	18.0	Petrosimonia brachiata	18.0
Androsace maxima	18.0	Anabasis aphylla	18.0
Xanthoparmelia ryssolea	14.0	Syntrichia ruralis	14.0
Leymus ramosus	14.0	Lepidium perfoliatum	14.0
Artemisia taurica	14.0	Artemisia scoparia	14.0
Xanthoria parietina	11.0	Xanthoparmelia camtschadalis	11.0
Veronica triphyllos	11.0	Lappula patula	11.0
Lappula marginata	11.0	Chorispora tenella	11.0
Glycyrrhiza glabra	11.0	Filago arvensis	11.0
Astragalus testiculatus	11.0	Anabasis salsa	11.0
Agropyron desertorum	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Medicago medicaginoides	7.0
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S68 - [F68c] Semi-desert sand dune with sparse scrub

*Diagnostic species (phi coefficient * 100)*

Salsola tragus	75.0	Ceratocarpus arenarius	68.9
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Leymus racemosus	65.6	Peganum harmala	59.6
Artemisia arenaria	58.8	Eremopyrum triticeum	58.1
Medicago orthoceras	48.3	Tamarix ramosissima	48.2
Cannabis sativa	46.4	Tribulus terrestris	44.5
Ephedra distachya	42.9	Bromus squarrosus	41.5
Amaranthus albus	40.6	Alyssum turkestanicum	40.5
Anisantha tectorum	39.2	Artemisia austriaca	35.7
Jurinea ewersmanii	35.2	Corispermum aralocaspicum	35.2
Seseli campestre	35.1	Tragopogon brevisrostris	35.0
Gagea reticulata	34.8	Lappula patula	34.6
Xanthoparmelia camtschadalis	34.4	Prangos odontalgica	34.4
Meniocus linifolius	32.6	Argusia sibirica	32.6
Petasites spurius	32.3	Centaurea odessana	32.3
Sisymbrium polymorphum	32.0	Artemisia taurica	31.0
Artemisia lerchiana	30.8	Carduus uncinatus	30.2
Malva pusilla	30.0	Centaurea arenaria aggr.	29.8
Secale sylvestre	29.7	Salsola soda	29.4
Glycyrrhiza glabra	29.0	Amorpha fruticosa	28.0
Xanthium spinosum	25.5	Cynanchum acutum	25.1
Artemisia santonicum	22.5	Xanthium strumarium	21.8
Filago arvensis	20.6	Descurainia sophia	17.8
Euphorbia seguieriana	17.6	Eryngium maritimum	16.8
Buglossoides arvensis	16.2	Bryum argenteum	15.5
Solanum nigrum	15.0		
<i>Constant species (occurrence frequencies)</i>			
Salsola tragus	62.0	Leymus racemosus	50.0
Ceratocarpus arenarius	50.0	Peganum harmala	38.0
Eremopyrum triticeum	38.0	Bromus squarrosus	38.0
Artemisia arenaria	38.0	Anisantha tectorum	38.0
Tribulus terrestris	25.0	Tamarix ramosissima	25.0
Medicago orthoceras	25.0	Ephedra distachya	25.0
Cannabis sativa	25.0	Artemisia austriaca	25.0
Amaranthus albus	25.0	Alyssum turkestanicum	25.0
Xanthoparmelia camtschadalis	12.0	Xanthium strumarium	12.0
Xanthium spinosum	12.0	Tragopogon brevisrostris	12.0
Syntrichia ruralis	12.0	Solanum nigrum	12.0
Sisymbrium polymorphum	12.0	Seseli campestre	12.0
Secale sylvestre	12.0	Salsola soda	12.0
Prangos odontalgica	12.0	Polygonum aviculare	12.0
Poa bulbosa	12.0	Petasites spurius	12.0
Meniocus linifolius	12.0	Malva pusilla	12.0
Lappula patula	12.0	Jurinea ewersmanii	12.0
Chenopodium album	12.0	Glycyrrhiza glabra	12.0
Gagea reticulata	12.0	Filago arvensis	12.0
Euphorbia seguieriana	12.0	Eryngium maritimum	12.0
Elytrigia repens	12.0	Descurainia sophia	12.0
Cynanchum acutum	12.0	Corispermum aralocaspicum	12.0

Centaurea scabiosa	12.0	Centaurea odessana	12.0
Centaurea arenaria aggr.	12.0	Carduus uncinatus	12.0
Buglossoides arvensis	12.0	Bryum argenteum	12.0
Artemisia taurica	12.0	Artemisia santonicum	12.0
Artemisia lerchiana	12.0	Argusia sibirica	12.0
Amorpha fruticosa	12.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Artemisia arenaria	25.0	Leymus racemosus	12.0
Ceratocarpus arenarius	12.0	Artemisia taurica	12.0

S71 - [F71] Western Mediterranean spiny heath

*Diagnostic species (phi coefficient * 100)*

Genista corsica	85.0	Helichrysum italicum	72.9
Teucrium marum	49.8	Cistus monspeliensis	48.8
Genista sardoa	37.5	Juniperus phoenicea	36.2
Pistacia lentiscus	36.1	Asparagus albus	35.9
Stachys glutinosa	34.6	Carlina corymbosa	34.3
Cistus salviifolius	32.3	Astragalus tragacantha	32.0
Teucrium massiliense	31.8	Ptilostemon casabonae	30.6
Crepis bellidifolia	29.9	Lavandula stoechas	29.7
Phillyrea angustifolia	29.0	Asphodelus ramosus	26.4
Calicotome villosa	26.2	Brachypodium retusum	26.2
Bellium bellidioides	26.1	Rosmarinus officinalis	25.6
Rumex bucephalophorus	24.1	Cistus creticus	23.6
Armeria pungens	23.5	Prasium majus	23.0
Thymus herba-barona	22.5	Lobularia maritima	21.8
Genista monspessulana	21.7	Chamaerops humilis	21.1
Carex macrolepis	21.0	Euphorbia pithyusa	20.8
Urospermum dalechampii	20.2	Galactites tomentosus	20.0
Convolvulus althaeoides	20.0	Reichardia picroides	19.5
Sixalix atropurpurea	19.3	Galium schmidii	18.6
Polygala sardoa	18.5	Ferula arrigonii	18.5
Centaurea horrida	18.2	Limonium acutifolium	18.1
Crocus minimus	18.1	Anchusa crispa	18.0
Allium triquetrum	18.0	Gagea villosa	17.5
Crucianella maritima	17.5	Colchicum alpinum	17.5
Rosa serafinii	17.0	Lagurus ovatus	16.7
Euphorbia dendroides	16.4	Thymelaea tartonraira	16.2
Pallenis maritima	15.7	Linum maritimum	15.7
Eryngium tricuspdatum	15.7	Asparagus acutifolius	15.2

Constant species (occurrence frequencies)

Helichrysum italicum	79.0	Genista corsica	75.0
Pistacia lentiscus	46.0	Cistus monspeliensis	46.0
Cistus salviifolius	36.0	Brachypodium retusum	36.0

Juniperus phoenicea	32.0	Teucrium marum	29.0
Phillyrea angustifolia	29.0	Dactylis glomerata	29.0
Carlina corymbosa	29.0	Rosmarinus officinalis	25.0
Lavandula stoechas	21.0	Daucus carota	21.0
Asphodelus ramosus	21.0	Asparagus acutifolius	21.0
Rubia peregrina	18.0	Cistus creticus	18.0
Calicotome villosa	18.0	Asparagus albus	18.0
Stachys glutinosa	14.0	Smilax aspera	14.0
Rumex bucephalophorus	14.0	Reichardia picroides	14.0
Prasium majus	14.0	Genista sardea	14.0
Urospermum dalechampii	11.0	Teucrium polium aggr.	11.0
Teucrium massiliense	11.0	Sixalix atropurpurea	11.0
Ptilostemon casabonae	11.0	Lonicera implexa	11.0
Lobularia maritima	11.0	Lagurus ovatus	11.0
Jasione montana	11.0	Chamaerops humilis	11.0
Galactites tomentosus	11.0	Euphorbia characias	11.0
Crepis bellidifolia	11.0	Convolvulus althaeoides	11.0
Bellium bellidioides	11.0	Astragalus tragacantha	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Genista corsica	75.0	Genista sardea	14.0
Astragalus tragacantha	11.0	Cistus monspeliensis	7.0

S72 - [F73] Eastern Mediterranean spiny heath (phrygana)

*Diagnostic species (phi coefficient * 100)*

Sarcopoterium spinosum	80.4	Genista acanthoclada	56.0
Thymra capitata	55.0	Leontodon tuberosus	51.7
Galium murale	42.2	Phagnalon rupestre	39.1
Carlina graeca	39.0	Hypochaeris achyrophorus	38.6
Lagoecia cuminoides	37.6	Medicago coronata	37.0
Satureja thymra	36.5	Erica manipuliflora	35.6
Phlomis fruticosa	35.0	Drimia maritima	34.5
Euphorbia acanthothamnos	34.3	Anisantha fasciculata	33.9
Convolvulus althaeoides	32.6	Centaurea idaea	32.4
Asphodelus ramosus	32.4	Crepis neglecta	32.3
Catapodium rigidum	32.0	Valantia hispida	31.7
Aira elegantissima	30.5	Brachypodium retusum	30.4
Pyrus spinosa	30.0	Centaurea raphanina	30.0
Ranunculus paludosus	29.3	Fumana arabica	29.1
Verbascum spinosum	29.0	Crucianella latifolia	28.9
Helictotrichon convolutum	28.8	Calicotome villosa	28.8
Biscutella didyma	28.1	Malva cretica	27.9
Linum strictum aggr.	27.8	Bromus intermedius	27.6
Gastridium phleoides	27.5	Lamyropsis cynaroides	27.4
Filago aegaea	27.1	Asperula rigida	27.1
Gagea graeca	27.0	Trifolium stellatum	26.9

Teucrium microphyllum	26.9	Lotus ornithopodioides	26.9
Micromeria nervosa	26.8	Micromeria juliana	26.5
Berberis cretica	26.4	Plantago cretica	26.0
Hymenocarpus circinnatus	25.6	Tordylium apulum	25.5
Briza maxima	25.1	Piptatherum coerulescens	24.9
Atractylis cancellata	24.9	Bupleurum gracile	24.6
Salvia viridis	23.9	Centaurea spinosa	23.7
Sherardia arvensis	23.6	Asparagus aphyllus	23.6
Sideritis syriaca	23.5	Scaligeria napiformis	23.5
Daucus involucratus	23.5	Festuca jeanpertii	23.2
Linum trigynum	23.0	Stachys spinosa	22.8
Allium rubrovittatum	22.7	Ononis reclinata	22.5
Plantago afra	22.4	Plantago bellardii	22.3
Quercus coccifera	22.2	Euphorbia myrsinites	22.2
Astragalus angustifolius	22.2	Anthemis chia	22.2
Tolpis virgata	21.7	Anthyllis hermanniae	21.4
Thesium humile	21.3	Phlomis cretica	21.3
Hypericum empetrifolium	21.2	Fumana thymifolia	21.2
Acantholimon ulicinum	21.2	Aegilops biuncialis	21.0
Vicia cretica	20.9	Ballota pseudodictamnus	20.9
Galium setaceum	20.3	Lithodora hispidula	20.2
Hippocrepis ciliata	20.0	Plantago lagopus	19.9
Sonchus bulbosus	19.5	Euphorbia peplus	19.5
Scorpiurus muricatus	19.3	Ballota acetabulosa	19.1
Bromus scoparius	18.9	Trifolium scabrum	18.7
Galium incrassatum	18.6	Anthemis rigida	18.6
Asterolinon linum-stellatum	18.5	Lotus edulis	18.4
Filago pygmaea	18.4	Cynara cornigera	18.2
Satureja spinosa	18.0	Legousia pentagonia	18.0
Aegilops caudata	18.0	Teucrium gracile	17.9
Ononis verae	17.9	Bufonia stricta	17.9
Cardopatum corymbosum	17.8	Cistus creticus	17.6
Psilurus incurvus	17.5	Securigera cretica	17.4
Medicago murex	17.4	Cyperus sharonensis	17.4
Astracantha cretica	17.3	Moraea mediterranea	17.2
Medicago monspeliaca	17.2	Salvia fruticosa	17.0
Hedypnois rhagadioloides	17.0	Crepis hellenica	17.0
Asperula idaea	17.0	Thesium bergeri	16.9
Convolvulus oleifolius	16.9	Pimpinella tragium	16.8
Hyparrhenia hirta	16.8	Polygala venulosa	16.7
Rostraria cristata	16.6	Urospermum picroides	16.5
Carlina lanata	16.5	Allosorus acrosticus	16.5
Anagallis arvensis	16.2	Trifolium infamia-ponertii	16.1
Centaurium tenuiflorum	16.1	Cerastium comatum	16.0
Theligonum cynocrambe	15.8	Paronychia macrosepala	15.8
Cuscuta palaestina	15.8	Bellardia trixago	15.8
Prasium majus	15.7	Pimpinella peregrina	15.7
Filago eriocephala	15.6	Vulpia ciliata	15.5

Cyclamen graecum	15.5	Cichorium spinosum	15.5
Avellinia festucoides	15.4	Asparagus albus	15.4
Chamaerops humilis	15.3	Acanthus spinosus	15.3
Campanula spatulata	15.2	Crepis foetida	15.1
<i>Constant species (occurrence frequencies)</i>			
Sarcopoterium spinosum	73.0	Thymra capitata	42.0
Brachypodium retusum	42.0	Leontodon tuberosus	36.0
Genista acanthoclada	36.0	Dactylis glomerata	35.0
Catapodium rigidum	27.0	Asphodelus ramosus	27.0
Hypochaeris achyrophorus	25.0	Galium murale	25.0
Sherardia arvensis	24.0	Quercus coccifera	24.0
Phagnalon rupestre	24.0	Drimia maritima	24.0
Trifolium campestre	22.0	Anagallis arvensis	22.0
Linum strictum aggr.	20.0	Convolvulus althaeoides	20.0
Calicotome villosa	20.0	Aira elegantissima	20.0
Pistacia lentiscus	18.0	Phlomis fruticosa	18.0
Lagoecia cuminoides	18.0	Erica manipuliflora	18.0
Carlina graeca	18.0	Briza maxima	18.0
Trifolium stellatum	16.0	Satureja thymra	16.0
Pyrus spinosa	16.0	Medicago coronata	16.0
Crepis neglecta	16.0	Valantia hispida	15.0
Trifolium scabrum	15.0	Teucrium polium aggr.	15.0
Ranunculus paludosus	15.0	Euphorbia acanthothamnos	15.0
Asparagus acutifolius	15.0	Anisantha fasciculata	15.0
Poa bulbosa	13.0	Fumana thymifolia	13.0
Eryngium campestre	13.0	Crucianella latifolia	13.0
Cistus creticus	13.0	Centaurea raphanina	13.0
Centaurea idaea	13.0	Asparagus aphyllus	13.0
Tordylium apulum	11.0	Sonchus bulbosus	11.0
Plantago lagopus	11.0	Plantago bellardii	11.0
Piptatherum coeruleescens	11.0	Micromeria juliana	11.0
Lotus ornithopodioides	11.0	Linum trigynum	11.0
Lamyropsis cynaroides	11.0	Helictotrichon convolutum	11.0
Fumana arabica	11.0	Euphorbia peplus	11.0
Euphorbia myrsinites	11.0	Bromus intermedius	11.0
Biscutella didyma	11.0	Avena barbata	11.0
Asterolinon linum-stellatum	11.0		
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Sarcopoterium spinosum	55.0	Genista acanthoclada	33.0
Euphorbia acanthothamnos	13.0	Thymra capitata	7.0
Centaurea spinosa	7.0	Erica manipuliflora	5.0

S73 - [F74a] Western Mediterranean mountain hedgehog-heath

*Diagnostic species (phi coefficient * 100)*

Cytisus balansae	82.1	Genista cinerascens	42.3
Jacobaea adonidifolia	28.2	Festuca summilusitana	27.8
Arenaria quereioides	26.8	Erinacea anthyllis	25.8
Orobanche rapum-genistae	25.6	Carduus carpetanus	24.6
Jasione crispa	23.8	Festuca elegans	23.5
Linaria repens	23.0	Echinopartum lusitanicum	20.9
Juniperus communis subsp. nana	20.5	Festuca eskia	20.3
Festuca indigesta	19.4	Lactuca viminea	19.3
Ornithogalum concinnum	19.2	Luzula lactea	18.8
Genista florida	18.8	Santolina rosmarinifolia	18.1
Koeleria crassipes	18.1	Neoschischkinia truncatula	18.0
Festuca arvernensis subsp. costei	17.7	Helictochloa marginata	17.6
Plantago subulata	16.5	Anarrhinum bellidifolium	16.4
Digitalis thapsi	16.2	Molopospermum peloponnesiacum	16.0
Leucantheropsis pallida	16.0	Agrostis castellana	15.5
<i>Constant species (occurrence frequencies)</i>			
Cytisus balansae	83.0	Avenella flexuosa	46.0
Calluna vulgaris	33.0	Cytisus scoparius	22.0
Juniperus communis subsp. nana	20.0	Genista cinerascens	20.0
Teucrium scorodonia	17.0	Rubus idaeus	17.0
Juniperus communis subsp. communis	16.0	Arrhenatherum elatius	16.0
Rumex acetosella	15.0	Linaria repens	15.0
Jasione montana	15.0	Agrostis capillaris	15.0
Pteridium aquilinum	13.0	Jacobaea adonidifolia	13.0
Vaccinium myrtillus	12.0	Thymus praecox	12.0
Pinus sylvestris	11.0	Jasione crispa	11.0
Gentiana lutea	11.0	Erinacea anthyllis	11.0
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Cytisus balansae	82.0	Erinacea anthyllis	10.0

S74 - [F74b] Central Mediterranean mountain hedgehog-heath

<i>Diagnostic species (phi coefficient * 100)</i>			
Genista lobelii	64.8	Thymus herba-barona	44.2
Astracantha parnassi subsp. calabricus	42.4	Galium corsicum	40.9
Centaurea sarfattiana	38.7	Cerastium soleirolii	38.3
Petrorhagia saxifraga	38.1	Bellium bellidioides	37.9
Anthyllis hermanniae	37.7	Armeria brutia	36.1
Genista desoleana	34.5	Carlina nebrodensis	34.0
Hypochaeris robertia	33.6	Festuca circummediterranea	32.3
Hypericum barbatum	32.0	Plantago maritima subsp. serpentina	31.9
Sedum amplexicaule	31.4	Helichrysum italicum	31.2
Phleum ambiguum	31.0	Tolpis virgata	30.9
Splendens subsp. brutia	30.0	Hypochaeris cretensis	30.0
Rosa serafinii	29.5	Anthemis cretica	29.5

Bunium alpinum	28.5	Thymus longicaulis	28.4
Stachys corsica	28.2	Berberis aetnensis	27.8
Sagina pilifera	27.4	Silene italica	26.2
Klasea nudicaulis	26.2	Festuca laevigata	26.2
Ligusticum corsicum	26.1	Crocus corsicus	25.9
Jasione montana	25.3	Cytisus spinescens	24.8
Euphorbia spinosa	24.6	Satureja montana	24.4
Pilosella hoppeana	23.8	Iberis saxatilis	23.4
Valeriana tuberosa	23.2	Santolina chamaecyparissus aggr.	23.0
Secale strictum	22.9	Genista salzmannii	21.9
Carlina macrocephala	21.6	Agrostis castellana	21.6
Rumex aetnensis	20.9	Plantago subulata	20.6
Festuca robustifolia	20.6	Viola corsica	20.4
Astracantha sicula	20.3	Centaurea paniculata	19.3
Galium aetnicum	19.1	Achillea ligustica	19.1
Scorzonera austriaca	19.0	Pilosella lactucella	19.0
Fumana ericifolia	19.0	Sedum ochroleucum	18.6
Potentilla detommasii	18.1	Dianthus sylvestris	18.1
Aira caryophyllea	17.6	Morisia monanthos	17.4
Genista cupanii	17.3	Santolina ligustica	17.2
Genista michelii	17.0	Festuca gamisansii subsp. aethaliae	17.0
Senecio squalidus subsp. aethnensis	16.9	Odontites corsica	16.8
Teucrium montanum	15.8	Scorzonera hirsuta	15.8
Tulipa sylvestris	15.7	Thymus vulgaris	15.7
Inula montana	15.7	Brimeura fastigiata	15.5
Scorzoneroides cichoriacea	15.4	Phyteuma serratum	15.3
Centaurea parlatoris	15.2	Stipa pennata	15.1
<i>Constant species (occurrence frequencies)</i>			
Genista lobelii	44.0	Petrorhagia saxifraga	31.0
Jasione montana	30.0	Helichrysum italicum	25.0
Thymus herba-barona	22.0	Rumex acetosella	22.0
Plantago maritima subsp. serpentina	22.0	Helianthemum nummularium	22.0
Thymus longicaulis	20.0	Silene italica	20.0
Anthyllis hermanniae	20.0	Thymus vulgaris	19.0
Satureja montana	19.0	Galium corsicum	19.0
Festuca circummediterranea	19.0	Bellium bellidioides	19.0
Astracantha parnassi subsp. calabricus	19.0	Anthoxanthum odoratum aggr.	19.0
Teucrium montanum	17.0	Cerastium soleirolii	17.0
Avenella flexuosa	17.0	Anthyllis vulneraria	17.0
Teucrium polium aggr.	16.0	Sedum amplexicaule	16.0
Pilosella hoppeana	16.0	Phleum ambiguum	16.0
Nardus stricta	16.0	Hypochaeris robertia	16.0
Dactylis glomerata	16.0	Centaurea sarfattiana	16.0
Teucrium chamaedrys	14.0	Pilosella lactucella	14.0
Juniperus communis subsp. nana	14.0	Hypericum barbatum	14.0
Bromopsis erecta	14.0	Brachypodium rupestre	14.0
Brachypodium pinnatum	14.0	Armeria brutia	14.0

Anthemis cretica	14.0	Aira caryophyllea	14.0
Agrostis castellana	14.0	Tolpis virgata	12.0
Hypochaeris cretensis	12.0	Genista desoleana	12.0
Dianthus sylvestris	12.0	Carlina nebrodensis	12.0
Sesleria coerulans	11.0	Santolina chamaecyparissus aggr.	11.0
Plantago subulata	11.0	Cerastium arvense	11.0
Carex humilis	11.0	Carex halleriana	11.0
Carex caryophyllea	11.0	Bunium alpinum	11.0
Aphyllanthes monspeliensis	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Genista lobelii	44.0	Astracantha parnassi subsp. calabricus	17.0
Genista desoleana	12.0	Thymus longicaulis	8.0
Cytisus spinescens	8.0	Genista salzmännii	6.0

S75 - [F74c] Eastern Mediterranean mountain hedgehog-heath

*Diagnostic species (phi coefficient * 100)*

Daphne oleoides	67.8	Astragalus angustifolius	64.7
Eryngium amethystinum	61.9	Marrubium velutinum	60.9
Astracantha rumelica	60.6	Poa thessala	54.6
Carduus tmoleus	50.8	Berberis cretica	48.1
Cerastium candidissimum	47.1	Campanula spatulata	47.0
Asyneuma limonifolium	46.7	Acantholimon ulicinum	45.0
Koeleria lobata	43.2	Galium thymifolium	43.1
Astracantha cretica	43.0	Phleum montanum	40.5
Festuca varia	40.5	Ptilostemon afer	39.7
Prunus prostrata	38.3	Bromopsis cappadocica	37.9
Cirsium hypopsilum	37.8	Clinopodium alpinum	37.1
Cerastium brachypetalum	35.8	Festuca jeanpertii	35.7
Festuca polita	34.8	Lepidium hirtum	34.5
Thymus longicaulis	34.0	Minuartia attica	33.2
Melica ciliata	33.0	Verbascum epixanthinum	32.2
Dianthus biflorus	32.2	Marrubium cylleneum	32.1
Centaurea affinis	32.1	Aubrieta deltoidea	31.0
Rosa pulverulenta	29.8	Pimpinella tragium	29.1
Cirsium morinifolium	28.4	Lactuca alpestris	28.3
Geranium macrostylum	28.1	Trifolium parnassii	27.8
Morina persica	27.5	Sedum amplexicaule	27.2
Hypochaeris tenuiflora	25.0	Rosa heckeliana	24.9
Galium taygetum	24.9	Gagea chrysantha	24.9
Allium frigidum	24.9	Anchusa cespitosa	24.7
Crataegus pycnoloba	24.5	Veronica thymifolia	24.4
Sesleria vaginalis	24.3	Euphorbia herniariifolia	23.9
Prunus cocomilia	23.8	Asperula idaea	23.6
Taraxacum sect. Scariosa	23.4	Crupina crupinastrum	22.9
Herniaria parnassica	22.7	Euphorbia myrsinites	21.7

Senecio squalidus subsp. squalidus	21.2	Centaurea idaea	21.0
Anthemis rigida	20.7	Colchicum cretense	20.4
Anthemis cretica	20.4	Allium phthioticum	20.4
Corydalis uniflora	20.3	Erysimum pectinatum	20.2
Astracantha thracica	20.2	Scilla nana	20.1
Minuartia juniperina	20.1	Linaria peloponnesiaca	20.1
Crepis sibthorpiana	20.1	Allium guttatum	20.1
Stipa pennata	19.8	Myosotis refracta	19.6
Malcolmia graeca	19.5	Lactuca viminea	19.5
Crataegus heldreichii	19.5	Bufonia stricta	19.5
Peridictyon sanctum	19.4	Cirsium candelabrum	19.3
Scandix australis	19.1	Geranium subcaulescens	18.9
Erysimum pusillum	18.9	Crocus sieberi	18.9
Crataegus orientalis	18.9	Telephium imperati	18.7
Arum creticum	18.6	Silene radicata	18.5
Stachys germanica	18.1	Poa bulbosa	17.7
Sideritis syriaca	16.5	Salvia argentea	16.5
Alyssum montanum	16.5	Alyssum minutum	16.3
Campanula lingulata	16.2	Ballota acetabulosa	16.1
Drabella muralis	16.0	Bromus scoparius	15.9
Armeria canescens	15.9	Pilosella cymosa	15.2
Euphorbia acanthothamnos	15.2		
<i>Constant species (occurrence frequencies)</i>			
Daphne oleoides	53.0	Eryngium amethystinum	51.0
Dactylis glomerata	49.0	Astragalus angustifolius	45.0
Marrubium velutinum	38.0	Astracantha rumelica	38.0
Clinopodium alpinum	36.0	Poa thessala	32.0
Melica ciliata	32.0	Koeleria lobata	28.0
Carduus tmoleus	28.0	Campanula spatulata	28.0
Thymus longicaulis	26.0	Cerastium brachypetalum	26.0
Berberis cretica	26.0	Asyneuma limonifolium	26.0
Poa bulbosa	23.0	Festuca varia	23.0
Cerastium candidissimum	23.0	Phleum montanum	21.0
Acantholimon ulicinum	21.0	Sanguisorba minor	19.0
Galium thymifolium	19.0	Astracantha cretica	19.0
Ptilostemon afer	17.0	Prunus prostrata	17.0
Bromopsis cappadocica	17.0	Pimpinella tragium	15.0
Festuca jeanpertii	15.0	Cirsium hypopsilum	15.0
Arenaria serpyllifolia	15.0	Trisetum flavescens	13.0
Stipa pennata	13.0	Sedum amplexicaule	13.0
Minuartia attica	13.0	Lepidium hirtum	13.0
Juniperus oxycedrus	13.0	Festuca polita	13.0
Centaurea affinis	13.0	Verbascum epixanthinum	11.0
Teucrium chamaedrys	11.0	Sedum album	11.0
Sedum acre	11.0	Rosa pulverulenta	11.0
Marrubium cylleneum	11.0	Euphorbia myrsinites	11.0
Dianthus biflorus	11.0	Cynosurus echinatus	11.0

Aubrieta deltoidea 11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Astracantha rumelica	38.0	Astragalus angustifolius	32.0
Astracantha cretica	15.0	Berberis cretica	9.0

S76 - [F74d] Canary mountain hedgehog-heath

*Diagnostic species (phi coefficient * 100)*

Cytisus supranubius	82.3	Pterocephalus lasiospermus	75.6
Tolpis webbii	68.4	Erysimum scoparium	68.4
Arrhenatherum calderae	64.6	Scrophularia glabrata	64.4
Adenocarpus viscosus	64.2	Nepeta teydea	55.9
Descurainia bourgaeana	45.6	Argyranthemum tenerifae	45.6
Pinus canariensis	43.4	Cheirolophus teydis	39.4
Sideritis eriocephala	32.3	Micromeria lasiophylla subsp. palmensis	32.3
Pimpinella cumbrae	32.2	Echium wildpretii	32.2
Descurainia gonzalesii	32.1	Micromeria lachnophylla	32.0
Carlina xeranthemoides	31.9	Argyranthemum adauctum	31.8
Bystropogon organifolius	31.5	Andryala pinnatifida	30.5
Cytisus proliferus	29.7	Sonchus canariensis	22.8
Polycarpha tenuis	22.8	Plantago webbii	22.8
Echium gentianoides	22.8	Descurainia lemsii	22.8
Cerastium sventenii	22.8	Aeonium smithii	22.8
Silene nocteolens	22.7	Viola cheiranthifolia	22.6
Echium virescens	22.1	Bufonia paniculata	21.8
Juniperus cedrus	21.7		

Constant species (occurrence frequencies)

Cytisus supranubius	68.0	Pterocephalus lasiospermus	58.0
Tolpis webbii	47.0	Erysimum scoparium	47.0
Scrophularia glabrata	42.0	Arrhenatherum calderae	42.0
Adenocarpus viscosus	42.0	Nepeta teydea	32.0
Pinus canariensis	21.0	Descurainia bourgaeana	21.0
Argyranthemum tenerifae	21.0	Cheirolophus teydis	16.0
Sideritis eriocephala	11.0	Pimpinella cumbrae	11.0
Micromeria lasiophylla subsp. palmensis	11.0	Micromeria lachnophylla	11.0
Echium wildpretii	11.0	Descurainia gonzalesii	11.0
Cytisus proliferus	11.0	Carlina xeranthemoides	11.0
Bystropogon organifolius	11.0	Argyranthemum adauctum	11.0
Anisantha tectorum	11.0	Andryala pinnatifida	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Cytisus supranubius	37.0	Pterocephalus lasiospermus	32.0
Silene nocteolens	5.0	Plantago webbii	5.0
Pimpinella cumbrae	5.0	Micromeria lasiophylla subsp. palmensis	5.0
Micromeria lachnophylla	5.0	Cheirolophus teydis	5.0

Echium virescens	5.0	Descurainia bourgaeana	5.0
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S81 - [F81] Canarian xerophytic scrub

*Diagnostic species (phi coefficient * 100)*

Kleinia neriifolia	73.8	Euphorbia regis-jubae	69.9
Euphorbia balsamifera	65.7	Rubia fruticosa	64.8
Plocama pendula	60.3	Euphorbia canariensis	59.0
Launaea arborescens	58.1	Schizogyne sericea	54.4
Periploca angustifolia	51.1	Cenchrus ciliaris	47.8
Hyparrhenia hirta	47.2	Lycium intricatum	46.6
Scilla haemorrhoidalis	43.0	Helianthemum canariense	41.7
Neochamaelea pulverulenta	41.2	Lavandula canariensis	40.6
Opuntia stricta	39.8	Rumex lunaria	38.2
Aristida adscensionis	38.1	Ceropegia fusca	37.7
Argyranthemum frutescens	36.8	Echium decaisnei	36.3
Fagonia cretica	34.2	Micromeria varia	34.1
Campylanthus salsoloides	32.7	Aeonium percarneum	31.0
Euphorbia lamarckii	30.8	Asparagus arborescens	29.8
Sonchus pinnatus	29.3	Opuntia ficus-indica	28.8
Kickxia scoparia	28.2	Retama raetam subsp. raetam	28.1
Forsskaolea angustifolia	27.8	Asparagus umbellatus	27.7
Lobularia canariensis	27.6	Lavandula multifida	27.3
Artemisia thuscula	27.2	Reseda scoparia	26.7
Echium brevirame	26.6	Asparagus pastorianus	26.5
Salvia canariensis	26.4	Aizoon canariense	26.0
Limonium pectinatum	25.6	Lycium afrum	24.7
Convolvulus floridus	24.7	Suaeda vera	24.4
Lotus lancerottensis	24.4	Polycarpha divaricata	24.2
Astydamia latifolia	24.0	Ajuga iva	23.9
Argyranthemum gracile	23.1	Allagopappus canariensis	23.0
Pancratium canariense	21.0	Phagnalon purpurascens	20.9
Euphorbia aphylla	20.9	Spergularia fimbriata	20.8
Rhamnus crenulata	20.8	Micromeria hyssopifolia	20.8
Kickxia sagittata	20.8	Asphodelus ramosus	20.8
Tricholaena teneriffae	20.2	Frankenia ericifolia	20.2
Patellifolia procumbens	19.8	Asparagus plocamoides	18.7
Withania aristata	18.6	Frankenia laevis	18.6
Asparagus scoparius	18.5	Salvia aegyptiaca	18.4
Opuntia tuna	18.1	Aeonium urbicum	18.1
Ferula linkii	17.8	Lotus sessilifolius	17.7
Carlina salicifolia	17.0	Polycarpha nivea	16.9
Stipa capensis	16.5	Umbilicus horizontalis	16.3
Lavandula pinnata	16.3	Aeonium haworthii	16.3
Asteriscus graveolens	16.2	Pericallis webbii	16.1
Ceballosia fruticosa	16.1	Brachypodium arbuscula	16.1
Suaeda ifniensis	16.0	Reichardia intermedia	16.0

Lavandula minutolii	16.0	Aeonium lindleyi	16.0
Micromeria herpyllomorpha	15.9	Spergula fallax	15.8
Echium aculeatum	15.8	Lotus glaucus	15.5
Euphorbia berthelotii	15.5	Ifloga spicata	15.0
<i>Constant species (occurrence frequencies)</i>			
Kleinia neriifolia	56.0	Euphorbia regis-jubae	50.0
Euphorbia balsamifera	44.0	Rubia fruticosa	43.0
Plocama pendula	37.0	Launaea arborescens	36.0
Euphorbia canariensis	35.0	Hyparrhenia hirta	34.0
Schizogyne sericea	31.0	Periploca angustifolia	28.0
Cenchrus ciliaris	24.0	Lycium intricatum	23.0
Scilla haemorrhoidalis	19.0	Helianthemum canariense	18.0
Neochamaelea pulverulenta	17.0	Lavandula canariensis	17.0
Opuntia stricta	16.0	Asphodelus ramosus	16.0
Rumex lunaria	15.0	Aristida adscensionis	15.0
Echium decaisnei	14.0	Ceropegia fusca	14.0
Argyranthemum frutescens	14.0	Micromeria varia	13.0
Fagonia cretica	13.0	Suaeda vera	11.0
Campylanthus salsoloides	11.0		
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Euphorbia balsamifera	36.0	Euphorbia canariensis	14.0
Euphorbia regis-jubae	9.0	Helianthemum canariense	6.0
Plocama pendula	5.0		

S82 - [F82] Madeiran xerophytic scrub

*Diagnostic species (phi coefficient * 100)*

Aeonium glandulosum	86.1	Plantago arborescens	78.5
Globularia salicina	78.5	Phyllis nobla	78.4
Euphorbia mellifera	70.4	Echium nervosum	70.4
Opuntia tuna	70.3	Helichrysum melaleucum	70.3
Carlina salicifolia	69.9	Sideritis candicans	61.0
Dactylis smithii	60.9	Hyparrhenia hirta	60.0
Davallia canariensis	59.7	Sinapidendron angustifolium	49.8
Echium portasanctensis	49.8	Sonchus ustulatus	49.7
Maytenus umbellata	49.7	Matthiola maderensis	49.7
Crambe fruticosa	49.7	Senecio incrassatus	49.4
Sideroxylon mirmulans	35.2	Micromeria varia subsp. thymoides	35.2
Lotus argyroides	35.2	Cheirolophus massonianus	35.2
Erysimum arbuscula	35.2	Tolpis succulenta	35.1
Teucrium betonicum	35.1	Sinapidendron gymnocalyx	35.1
Plantago leiopetala	35.1	Hypericum glandulosum	35.1
Hedera maderensis	35.1	Asparagus asparagoides	35.1
Genista tenera	35.0	Argyranthemum webbii	35.0
Pericallis aurita	34.9	Erysimum bicolor	34.8

Asparagus scoparius	34.8	Lotus glaucus	34.7
Laurus novocanariensis	34.7	Apollonias barbujana	34.7
Andryala glandulosa	34.6	Picconia excelsa	34.4
Asparagus umbellatus	34.3	Hypericum canariense	34.0
Ageratina adenophora	33.0	Ephedra fragilis	31.2
Carpobrotus edulis	30.8	Bituminaria bituminosa	30.0
Polygonum maritimum	26.4	Phagnalon saxatile	25.9
Scorpiurus muricatus	24.7	Euphorbia paralias	21.8
Rumex bucephalophorus	21.6	Prasium majus	20.6
Myrtus communis	16.0		
<i>Constant species (occurrence frequencies)</i>			
Aeonium glandulosum	75.0	Plantago arborescens	62.0
Phyllis nobla	62.0	Globularia salicina	62.0
Opuntia tuna	50.0	Hyparrhenia hirta	50.0
Helichrysum melaleucum	50.0	Euphorbia mellifera	50.0
Echium nervosum	50.0	Carlina salicifolia	50.0
Sideritis candicans	38.0	Davallia canariensis	38.0
Dactylis smithii	38.0	Sonchus ustulatus	25.0
Sinapidendron angustifolium	25.0	Senecio incrassatus	25.0
Rubus ulmifolius	25.0	Maytenus umbellata	25.0
Matthiola maderensis	25.0	Echium portasanctensis	25.0
Crambe fruticosa	25.0	Bituminaria bituminosa	25.0
Tolpis succulenta	12.0	Teucrium betonicum	12.0
Smilax aspera	12.0	Sinapidendron gymnocalyx	12.0
Sideroxylon mirmulans	12.0	Scorpiurus muricatus	12.0
Micromeria varia subsp. thymoides	12.0	Rumex bucephalophorus	12.0
Prasium majus	12.0	Polygonum maritimum	12.0
Plantago leiopetala	12.0	Picconia excelsa	12.0
Phagnalon saxatile	12.0	Pericallis aurita	12.0
Myrtus communis	12.0	Lotus glaucus	12.0
Lotus argyroides	12.0	Laurus novocanariensis	12.0
Cheirolophus massonianus	12.0	Hypericum glandulosum	12.0
Hypericum canariense	12.0	Hedera maderensis	12.0
Genista tenera	12.0	Euphorbia paralias	12.0
Erysimum bicolor	12.0	Erysimum arbuscula	12.0
Ephedra fragilis	12.0	Dioscorea communis	12.0
Carpobrotus edulis	12.0	Asparagus umbellatus	12.0
Asparagus scoparius	12.0	Asparagus asparagoides	12.0
Argyranthemum webbii	12.0	Apollonias barbujana	12.0
Andryala glandulosa	12.0	Ageratina adenophora	12.0
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Helichrysum melaleucum	25.0	Globularia salicina	25.0
Euphorbia mellifera	25.0	Sideroxylon mirmulans	12.0
Plantago arborescens	12.0	Hypericum canariense	12.0
Echium portasanctensis	12.0	Echium nervosum	12.0

S91 - [F91] Temperate riparian scrub

*Diagnostic species (phi coefficient * 100)*

Salix purpurea	55.2	Salix triandra	52.8
Salix eleagnos	41.8	Salix viminalis	40.1
Myricaria germanica	28.2	Salix daphnoides	17.8
Calystegia sepium	16.8	Salix salviifolia	16.4
Calamagrostis pseudophragmites	16.2	Salix euxina	16.1
Rubus caesius	15.9	Solanum dulcamara	15.5
Populus nigra	15.3		

Constant species (occurrence frequencies)

Salix purpurea	58.0	Urtica dioica	46.0
Salix triandra	43.0	Salix eleagnos	33.0
Phalaroides arundinacea	32.0	Rubus caesius	31.0
Calystegia sepium	29.0	Solanum dulcamara	26.0
Salix viminalis	26.0	Ranunculus repens	26.0
Agrostis stolonifera	24.0	Poa trivialis	23.0
Equisetum arvense	20.0	Glechoma hederacea	19.0
Galium aparine	19.0	Angelica sylvestris	19.0
Lythrum salicaria	18.0	Tussilago farfara	15.0
Symphytum officinale	15.0	Lysimachia vulgaris	15.0
Lycopus europaeus	15.0	Deschampsia cespitosa	15.0
Salix alba	14.0	Populus nigra	14.0
Mentha longifolia	14.0	Aegopodium podagraria	14.0
Taraxacum sect. Taraxacum	13.0	Salix euxina	13.0
Galium mollugo aggr.	13.0	Eupatorium cannabinum	13.0
Dactylis glomerata	13.0	Humulus lupulus	12.0
Elymus caninus	12.0	Brachypodium sylvaticum	12.0
Petasites hybridus	11.0	Filipendula ulmaria	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Salix purpurea	33.0	Salix triandra	26.0
Salix eleagnos	21.0	Salix viminalis	17.0
Urtica dioica	10.0	Myricaria germanica	8.0

S92 - [F92] Salix fen scrub

*Diagnostic species (phi coefficient * 100)*

Salix cinerea	38.9	Myrica gale	19.2
Salix repens	15.6	Salix aurita	15.4

Constant species (occurrence frequencies)

Salix cinerea	70.0	Lysimachia vulgaris	30.0
Galium palustre	29.0	Urtica dioica	24.0
Phragmites australis	24.0	Frangula alnus	24.0

Molinia caerulea aggr.	23.0	Solanum dulcamara	22.0
Lycopus europaeus	22.0	Juncus effusus	18.0
Calliergonella cuspidata	18.0	Salix repens	17.0
Lythrum salicaria	17.0	Iris pseudacorus	17.0
Filipendula ulmaria	16.0	Cirsium palustre	16.0
Salix aurita	15.0	Calamagrostis canescens	15.0
Betula pubescens	15.0	Poa trivialis	14.0
Myrica gale	13.0	Mentha aquatica	13.0
Holcus lanatus	13.0	Angelica sylvestris	13.0
Alnus glutinosa	13.0	Agrostis stolonifera	13.0
Rubus fruticosus aggr.	12.0	Ranunculus repens	12.0
Peucedanum palustre	12.0	Dryopteris carthusiana	12.0
Comarum palustre	12.0	Caltha palustris	12.0
Potentilla erecta	11.0	Equisetum fluviatile	11.0
Carex acutiformis	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Salix cinerea	63.0	Salix repens	14.0
Myrica gale	12.0	Salix aurita	7.0
Molinia caerulea aggr.	7.0	Frangula alnus	6.0

S93 - [F93] Mediterranean riparian scrub

*Diagnostic species (phi coefficient * 100)*

Vitex agnus-castus	53.9	Nerium oleander	53.3
Tamarix africana	40.2	Tamarix canariensis	37.0
Tamarix parviflora	35.6	Tamarix hampeana	30.1
Juncus acutus	26.7	Oxalis pes-caprae	21.4
Dracunculus vulgaris	21.1	Suaeda vera	20.3
Limonium vulgare aggr.	20.0	Dittrichia viscosa	19.7
Rubus sanctus	18.1	Piptatherum miliaceum	17.9
Juncus maritimus	17.6	Parietaria cretica	17.3
Hypericum hircinum	16.8	Atriplex halimus	16.4
Phlomis lanata	16.0	Sarcopoterium spinosum	15.9
Gomphocarpus fruticosus	15.9	Ballota pseudodictamnus	15.4
Polypogon monspeliensis	15.3		

Constant species (occurrence frequencies)

Nerium oleander	37.0	Vitex agnus-castus	32.0
Rubus ulmifolius	25.0	Tamarix africana	19.0
Pistacia lentiscus	16.0	Tamarix canariensis	15.0
Tamarix parviflora	14.0	Phragmites australis	14.0
Dittrichia viscosa	14.0	Juncus acutus	13.0
Piptatherum miliaceum	12.0	Galium aparine	12.0
Smilax aspera	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Nerium oleander	30.0	Vitex agnus-castus	22.0
Tamarix africana	15.0	Tamarix canariensis	14.0
Tamarix parviflora	13.0	Tamarix hampeana	9.0

S94 - [F94] Semi-desert riparian scrub

*Diagnostic species (phi coefficient * 100)*

Alhagi maurorum	92.5	Tamarix ramosissima	81.9
Aeluropus pungens	74.2	Eremopyrum triticeum	72.5
Polygonum arenarium	70.9	Limonium meyeri	69.6
Atriplex aucheri	69.0	Cynanchum acutum	68.2
Atriplex tatarica	63.4	Atriplex micrantha	59.7
Bassia sedoides	59.4	Lactuca tatarica	55.1
Suaeda altissima	48.6	Lepidium perfoliatum	47.3
Cynodon dactylon	46.1	Artemisia santonicum	44.6
Descurainia sophia	44.0	Bassia hyssopifolia	42.2
Polygonum bellardii	40.5	Lepidium latifolium	39.9
Glycyrrhiza glabra	37.7	Sisymbrium loeselii	37.4
Tamarix laxa	35.0	Lappula marginata	34.1
Dodartia orientalis	33.8	Petrosimonia oppositifolia	33.4
Galium humifusum	33.1	Suaeda acuminata	32.7
Bolboschoenus glaucus	32.2	Frankenia hirsuta	31.9
Eremopyrum orientale	31.6	Puccinellia gigantea	30.9
Verbascum blattaria	30.4	Althaea officinalis	29.0
Xanthium orientale	25.8	Gypsophila scorzonerifolia	24.7
Zygophyllum fabago	23.8	Medicago sativa	23.7
Petrosimonia brachiata	23.2	Senecio glaucus	23.0
Pterygoneurum ovatum	22.9	Chorispora tenella	22.9
Erysimum montanum	22.8	Elaeagnus angustifolia	21.7
Achillea micrantha	21.6	Limonium bellidifolium	21.4
Rhaponticum repens	21.2	Ceratocarpus arenarius	21.1
Polygonum patulum	20.8	Artemisia austriaca	20.6
Artemisia arenaria	20.5	Artemisia taurica	19.8
Erysimum repandum	19.6	Glycyrrhiza echinata	19.0
Elytrigia repens	19.0	Atriplex sagittata	17.2
Bromus squarrosus	16.3	Juncus gerardi	15.0
Consolida regalis	15.0		

Constant species (occurrence frequencies)

Alhagi maurorum	88.0	Tamarix ramosissima	69.0
Cynodon dactylon	62.0	Polygonum arenarium	56.0
Limonium meyeri	56.0	Eremopyrum triticeum	56.0
Cynanchum acutum	56.0	Aeluropus pungens	56.0
Elytrigia repens	50.0	Atriplex tatarica	50.0
Atriplex aucheri	50.0	Lactuca tatarica	38.0
Descurainia sophia	38.0	Bassia sedoides	38.0
Atriplex micrantha	38.0	Artemisia santonicum	31.0

Suaeda altissima	25.0	Lepidium perfoliatum	25.0
Xanthium orientale	19.0	Sisymbrium loeselii	19.0
Polygonum bellardii	19.0	Medicago sativa	19.0
Lepidium latifolium	19.0	Glycyrrhiza glabra	19.0
Galium humifusum	19.0	Calamagrostis epigejos	19.0
Bassia hyssopifolia	19.0	Althaea officinalis	19.0
Verbascum blattaria	12.0	Tamarix laxa	12.0
Suaeda acuminata	12.0	Silene latifolia	12.0
Puccinellia gigantea	12.0	Potentilla reptans	12.0
Poa bulbosa	12.0	Plantago major	12.0
Petrosimonia oppositifolia	12.0	Lappula marginata	12.0
Juncus gerardi	12.0	Frankenia hirsuta	12.0
Eremopyrum orientale	12.0	Dodartia orientalis	12.0
Convolvulus arvensis	12.0	Consolida regalis	12.0
Cirsium arvense	12.0	Bromus squarrosus	12.0
Bolboschoenus glaucus	12.0	Atriplex prostrata	12.0
Artemisia austriaca	12.0	Anisantha tectorum	12.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Tamarix ramosissima	69.0	Tamarix laxa	12.0
Cynodon dactylon	12.0	Atriplex micrantha	12.0
Atriplex aucheri	6.0		

T11 - [G11] Temperate Salix and Populus riparian forest

*Diagnostic species (phi coefficient * 100)*

Salix alba	53.7	Salix euxina	40.5
Populus nigra	31.8	Rubus caesius	22.1
Populus alba	22.0	Urtica dioica	20.5
Salix triandra	20.3	Humulus lupulus	20.1
Salix x fragilis	18.9	Salix purpurea	18.9
Calystegia sepium	18.7	Salix viminalis	18.5
Phalaroides arundinacea	17.5	Impatiens glandulifera	17.1
Galium aparine	16.1	Symphytum officinale	15.2

Constant species (occurrence frequencies)

Urtica dioica	72.0	Salix alba	59.0
Galium aparine	45.0	Rubus caesius	42.0
Phalaroides arundinacea	36.0	Glechoma hederacea	35.0
Salix euxina	33.0	Calystegia sepium	32.0
Populus nigra	30.0	Poa trivialis	29.0
Sambucus nigra	25.0	Ranunculus repens	25.0
Humulus lupulus	25.0	Symphytum officinale	23.0
Solanum dulcamara	23.0	Alnus glutinosa	22.0
Aegopodium podagraria	21.0	Fraxinus excelsior	20.0
Cornus sanguinea	20.0	Phragmites australis	19.0
Crataegus monogyna	19.0	Lycopus europaeus	18.0

Dactylis glomerata	18.0	Salix purpurea	17.0
Geum urbanum	17.0	Angelica sylvestris	17.0
Populus alba	16.0	Lythrum salicaria	16.0
Lysimachia vulgaris	16.0	Lamium maculatum	16.0
Agrostis stolonifera	16.0	Iris pseudacorus	15.0
Heracleum sphondylium	15.0	Filipendula ulmaria	15.0
Brachypodium sylvaticum	15.0	Rubus fruticosus aggr.	14.0
Euonymus europaeus	14.0	Anthriscus sylvestris	14.0
Alliaria petiolata	14.0	Salix triandra	13.0
Lysimachia nummularia	12.0	Ficaria verna	12.0
Equisetum arvense	12.0	Stachys sylvatica	11.0
Schedonorus giganteus	11.0	Salix cinerea	11.0
Rumex obtusifolius	11.0	Impatiens noli-tangere	11.0
Hedera helix	11.0	Galium palustre	11.0
Deschampsia cespitosa	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Salix alba	48.0	Urtica dioica	26.0
Salix euxina	24.0	Populus nigra	17.0
Rubus caesius	9.0	Populus alba	9.0
Phalaroides arundinacea	6.0		

T12 - [G12a] Alnus glutinosa-Alnus incana forest on riparian and mineral soils

*Diagnostic species (phi coefficient * 100)*

Alnus glutinosa	40.6	Alnus incana	22.4
Carex remota	17.0	Impatiens noli-tangere	16.5
Stachys sylvatica	16.1	Schedonorus giganteus	15.7
Stellaria nemorum	15.2	Urtica dioica	15.1

Constant species (occurrence frequencies)

Alnus glutinosa	82.0	Urtica dioica	54.0
Fraxinus excelsior	43.0	Athyrium filix-femina	38.0
Filipendula ulmaria	35.0	Geum urbanum	33.0
Ranunculus repens	32.0	Deschampsia cespitosa	30.0
Brachypodium sylvaticum	30.0	Sambucus nigra	28.0
Stachys sylvatica	27.0	Rubus fruticosus aggr.	27.0
Geranium robertianum	27.0	Corylus avellana	27.0
Aegopodium podagraria	27.0	Oxalis acetosella	25.0
Lamium galeobdolon	25.0	Impatiens noli-tangere	25.0
Galium aparine	25.0	Angelica sylvestris	25.0
Glechoma hederacea	24.0	Alnus incana	24.0
Rubus idaeus	23.0	Caltha palustris	23.0
Poa trivialis	21.0	Circaea lutetiana	21.0
Carex remota	21.0	Acer pseudoplatanus	21.0
Stellaria nemorum	20.0	Schedonorus giganteus	20.0
Plagiomnium undulatum	20.0	Hedera helix	20.0

Lysimachia vulgaris	19.0	Ficaria verna	19.0
Rubus caesius	18.0	Crataegus monogyna	18.0
Anemone nemorosa	18.0	Ajuga reptans	18.0
Solanum dulcamara	17.0	Chaerophyllum hirsutum	17.0
Carex sylvatica	17.0	Euonymus europaeus	16.0
Crepis paludosa	16.0	Sorbus aucuparia	15.0
Salix cinerea	15.0	Prunus padus	15.0
Lycopus europaeus	15.0	Humulus lupulus	15.0
Galium palustre	15.0	Cornus sanguinea	15.0
Cirsium oleraceum	15.0	Poa nemoralis	14.0
Picea abies	14.0	Equisetum arvense	14.0
Dryopteris filix-mas	14.0	Viburnum opulus	13.0
Quercus robur	13.0	Juncus effusus	13.0
Chrysosplenium alternifolium	13.0	Dryopteris dilatata	13.0
Cardamine amara	13.0	Viola reichenbachiana	12.0
Senecio nemorensis aggr.	12.0	Primula elatior	12.0
Phalaroides arundinacea	12.0	Lysimachia nummularia	12.0
Eupatorium cannabinum	12.0	Dryopteris carthusiana	12.0
Dactylis glomerata	12.0	Silene dioica	11.0
Lysimachia nemorum	11.0	Lonicera periclymenum	11.0
Lamium maculatum	11.0	Geum rivale	11.0
Brachythecium rutabulum	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Alnus glutinosa	79.0	Alnus incana	19.0
Urtica dioica	9.0	Fraxinus excelsior	6.0

T13 - [G12b] Temperate hardwood riparian forest

*Diagnostic species (phi coefficient * 100)*

Fraxinus excelsior	25.6	Prunus padus	25.3
Geum urbanum	23.0	Circaea lutetiana	22.8
Rumex sanguineus	22.1	Rubus caesius	22.0
Ribes rubrum aggr.	20.9	Schedonorus giganteus	19.8
Ficaria verna	19.7	Carex remota	19.7
Euonymus europaeus	19.6	Stachys sylvatica	18.7
Glechoma hederacea	18.7	Viburnum opulus	18.0
Quercus robur	17.9	Carex sylvatica	17.8
Alnus glutinosa	16.7	Ulmus minor	16.6
Brachypodium sylvaticum	16.6	Deschampsia cespitosa	16.0
Plagiomnium undulatum	15.8	Ulmus laevis	15.7
Urtica dioica	15.6		

Constant species (occurrence frequencies)

Fraxinus excelsior	82.0	Quercus robur	59.0
Urtica dioica	58.0	Geum urbanum	56.0
Deschampsia cespitosa	53.0	Corylus avellana	52.0

Brachypodium sylvaticum	46.0	Crataegus monogyna	44.0
Glechoma hederacea	43.0	Rubus caesius	42.0
Hedera helix	42.0	Euonymus europaeus	40.0
Carex sylvatica	40.0	Rubus fruticosus aggr.	39.0
Alnus glutinosa	39.0	Filipendula ulmaria	38.0
Circaea lutetiana	38.0	Cornus sanguinea	36.0
Galium aparine	35.0	Stachys sylvatica	33.0
Ficaria verna	33.0	Geranium robertianum	32.0
Prunus padus	31.0	Anemone nemorosa	30.0
Viburnum opulus	29.0	Plagiomnium undulatum	28.0
Schedonorus giganteus	27.0	Poa trivialis	27.0
Lamium galeobdolon	27.0	Carpinus betulus	27.0
Acer pseudoplatanus	27.0	Sambucus nigra	26.0
Ranunculus repens	26.0	Carex remota	26.0
Ulmus minor	25.0	Aegopodium podagraria	25.0
Paris quadrifolia	23.0	Athyrium filix-femina	23.0
Ajuga reptans	23.0	Acer campestre	23.0
Viola reichenbachiana	22.0	Polygonatum multiflorum	22.0
Rumex sanguineus	21.0	Prunus spinosa	21.0
Milium effusum	20.0	Angelica sylvestris	20.0
Ribes rubrum aggr.	19.0	Oxalis acetosella	19.0
Dactylis glomerata	19.0	Stellaria holostea	18.0
Crataegus laevigata	18.0	Primula elatior	17.0
Fagus sylvatica	17.0	Eurhynchium striatum	17.0
Lysimachia nummularia	16.0	Lonicera periclymenum	16.0
Ligustrum vulgare	16.0	Kindbergia praelonga	16.0
Humulus lupulus	16.0	Dryopteris filix-mas	16.0
Arum maculatum	16.0	Sorbus aucuparia	15.0
Scrophularia nodosa	15.0	Rubus idaeus	15.0
Prunus avium	15.0	Poa nemoralis	15.0
Moehringia trinervia	15.0	Iris pseudacorus	15.0
Impatiens noli-tangere	14.0	Fragaria vesca	14.0
Brachythecium rutabulum	14.0	Atrichum undulatum	14.0
Ranunculus auricomus aggr.	13.0	Lysimachia vulgaris	13.0
Galium palustre	13.0	Alliaria petiolata	13.0
Lonicera xylosteum	12.0	Galeopsis tetrahit	12.0
Cardamine pratensis	12.0	Veronica chamaedrys	11.0
Rosa arvensis	11.0	Mercurialis perennis	11.0
Heracleum sphondylium	11.0	Galium odoratum	11.0
Dryopteris carthusiana	11.0	Adoxa moschatellina	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Fraxinus excelsior	66.0	Quercus robur	34.0
Corylus avellana	15.0	Hedera helix	12.0
Ficaria verna	10.0	Rubus caesius	9.0
Rubus fruticosus aggr.	8.0	Prunus padus	8.0
Anemone nemorosa	8.0	Urtica dioica	7.0
Carpinus betulus	7.0	Alnus glutinosa	7.0

Ulmus minor	6.0	Fraxinus angustifolia	6.0
Deschampsia cespitosa	6.0	Glechoma hederacea	5.0

T14 - [G13] Mediterranean and Macaronesian riparian forest

*Diagnostic species (phi coefficient * 100)*

Platanus orientalis	53.0	Populus alba	48.6
Populus nigra	38.6	Arundo donax	34.2
Rubus ulmifolius	32.8	Ficus carica	29.9
Salix alba	27.9	Nerium oleander	27.9
Scirpoides holoschoenus	26.9	Arum italicum	26.7
Rubus sanctus	24.4	Fraxinus angustifolia	24.1
Piptatherum miliaceum	21.7	Vitis vinifera	21.5
Melissa officinalis	19.6	Equisetum ramosissimum	18.6
Clematis vitalba	18.0	Ulmus minor	17.7
Dorycnium rectum	17.7	Salix purpurea	16.4
Tamarix gallica	15.5	Parietaria judaica	15.4
Salix x fragilis	15.3		

Constant species (occurrence frequencies)

Rubus ulmifolius	61.0	Populus alba	42.0
Brachypodium sylvaticum	42.0	Hedera helix	39.0
Populus nigra	38.0	Clematis vitalba	32.0
Salix alba	30.0	Platanus orientalis	30.0
Crataegus monogyna	29.0	Ulmus minor	27.0
Arum italicum	26.0	Rubia peregrina	23.0
Fraxinus angustifolia	23.0	Scirpoides holoschoenus	22.0
Cornus sanguinea	22.0	Urtica dioica	19.0
Galium aparine	19.0	Dioscorea communis	19.0
Phragmites australis	17.0	Arundo donax	17.0
Ficus carica	16.0	Dactylis glomerata	16.0
Salix purpurea	15.0	Rubus caesius	15.0
Rosa canina aggr.	15.0	Calystegia sepium	15.0
Piptatherum miliaceum	14.0	Nerium oleander	14.0
Alnus glutinosa	14.0	Vitis vinifera	13.0
Smilax aspera	13.0	Sambucus nigra	13.0
Ligustrum vulgare	13.0	Carex pendula	13.0
Asparagus acutifolius	13.0	Salix cinerea	12.0
Humulus lupulus	12.0	Equisetum ramosissimum	12.0
Solanum dulcamara	11.0	Juglans regia	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Platanus orientalis	28.0	Populus alba	26.0
Populus nigra	17.0	Rubus ulmifolius	12.0
Salix alba	11.0	Hedera helix	9.0

T15 - [G14] Broadleaved swamp forest on non-acid peat

*Diagnostic species (phi coefficient * 100)*

Alnus glutinosa	45.3	Carex elongata	43.2
Solanum dulcamara	30.8	Thelypteris palustris	29.6
Carex acutiformis	29.4	Lysimachia vulgaris	24.5
Ribes nigrum	24.0	Peucedanum palustre	23.2
Calamagrostis canescens	23.1	Lycopus europaeus	22.8
Dryopteris carthusiana	22.3	Iris pseudacorus	21.1
Scutellaria galericulata	19.5	Frangula alnus	19.2
Galium palustre	17.7	Carex paniculata	17.2
Mnium hornum	17.0	Humulus lupulus	16.6
Carex pseudocyperus	15.9		

Constant species (occurrence frequencies)

Alnus glutinosa	100.0	Lysimachia vulgaris	59.0
Solanum dulcamara	49.0	Frangula alnus	49.0
Galium palustre	47.0	Dryopteris carthusiana	47.0
Lycopus europaeus	44.0	Carex acutiformis	43.0
Urtica dioica	42.0	Athyrium filix-femina	39.0
Filipendula ulmaria	37.0	Iris pseudacorus	36.0
Deschampsia cespitosa	36.0	Carex elongata	33.0
Rubus fruticosus aggr.	32.0	Caltha palustris	32.0
Fraxinus excelsior	30.0	Juncus effusus	29.0
Sorbus aucuparia	28.0	Ranunculus repens	28.0
Peucedanum palustre	28.0	Salix cinerea	27.0
Lythrum salicaria	27.0	Calamagrostis canescens	26.0
Thelypteris palustris	25.0	Rubus idaeus	25.0
Scutellaria galericulata	24.0	Calliergonella cuspidata	24.0
Poa trivialis	23.0	Betula pubescens	23.0
Mnium hornum	22.0	Dryopteris dilatata	22.0
Cirsium palustre	22.0	Quercus robur	21.0
Phragmites australis	21.0	Viburnum opulus	20.0
Plagiomnium undulatum	20.0	Humulus lupulus	20.0
Angelica sylvestris	20.0	Oxalis acetosella	19.0
Carex remota	19.0	Impatiens noli-tangere	18.0
Eupatorium cannabinum	18.0	Lonicera periclymenum	17.0
Brachythecium rutabulum	17.0	Carex paniculata	16.0
Viola palustris	15.0	Mentha aquatica	15.0
Corylus avellana	15.0	Cirsium oleraceum	15.0
Cardamine amara	15.0	Scirpus sylvaticus	14.0
Ribes nigrum	14.0	Plagiomnium affine	14.0
Myosotis scorpioides	14.0	Geranium robertianum	14.0
Galium aparine	14.0	Equisetum fluviatile	14.0
Circaea lutetiana	14.0	Rubus caesius	13.0
Prunus padus	13.0	Kindbergia praelonga	13.0
Crepis paludosa	13.0	Carex elata	13.0
Sambucus nigra	12.0	Picea abies	12.0

Phalaroides arundinacea	12.0	Glechoma hederacea	12.0
Geum urbanum	12.0	Euonymus europaeus	12.0
Betula pendula	12.0	Schedonorus giganteus	11.0
Molinia caerulea aggr.	11.0	Crataegus monogyna	11.0
Climacium dendroides	11.0	Ajuga reptans	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Alnus glutinosa	100.0	Carex acutiformis	16.0
Thelypteris palustris	6.0	Carex elongata	6.0
Fraxinus excelsior	5.0	Frangula alnus	5.0

T16 - [G15] Broadleaved mire forest on acid peat

*Diagnostic species (phi coefficient * 100)*

Betula pubescens	29.3	Molinia caerulea aggr.	20.8
Sphagnum palustre	20.1	Sphagnum fimbriatum	18.9
Frangula alnus	16.9	Polytrichum commune	15.5

Constant species (occurrence frequencies)

Betula pubescens	78.0	Molinia caerulea aggr.	65.0
Frangula alnus	44.0	Betula pendula	40.0
Pinus sylvestris	37.0	Vaccinium myrtillus	35.0
Quercus robur	32.0	Sorbus aucuparia	31.0
Polytrichum commune	31.0	Rubus fruticosus aggr.	30.0
Pleurozium schreberi	28.0	Avenella flexuosa	28.0
Dryopteris carthusiana	27.0	Calluna vulgaris	24.0
Picea abies	23.0	Sphagnum palustre	21.0
Dicranum scoparium	21.0	Aulacomnium palustre	21.0
Salix cinerea	20.0	Vaccinium vitis-idaea	19.0
Juncus effusus	19.0	Lysimachia vulgaris	18.0
Lonicera periclymenum	18.0	Eriophorum vaginatum	18.0
Alnus glutinosa	18.0	Vaccinium uliginosum	17.0
Carex nigra	17.0	Potentilla erecta	16.0
Polytrichastrum formosum	16.0	Hylocomium splendens	15.0
Dryopteris dilatata	15.0	Vaccinium oxycoccos	14.0
Salix aurita	13.0	Pteridium aquilinum	13.0
Calamagrostis canescens	13.0	Agrostis canina	13.0
Pseudoscleropodium purum	12.0	Hypnum cupressiforme	12.0
Comarum palustre	12.0	Carex rostrata	12.0
Trientalis europaea	11.0	Sphagnum fallax	11.0
Sphagnum angustifolium	11.0	Populus tremula	11.0
Polytrichum strictum	11.0	Pohlia nutans	11.0
Phragmites australis	11.0	Mnium hornum	11.0
Galium palustre	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Betula pubescens	56.0	Molinia caerulea aggr.	33.0
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Betula pendula	26.0	Sphagnum palustre	7.0
Vaccinium myrtillus	6.0	Sphagnum fallax	6.0
Pteridium aquilinum	6.0	Polytrichum commune	6.0

T17 - [G16a] Fagus forest on non-acid soils

*Diagnostic species (phi coefficient * 100)*

Fagus sylvatica	31.1	Galium odoratum	26.8
Viola reichenbachiana	18.1	Cardamine bulbifera	17.4
Lamium galeobdolon	17.3	Mercurialis perennis	17.2
Lactuca muralis	16.2	Dryopteris filix-mas	15.9
Acer pseudoplatanus	15.6	Prenanthes purpurea	15.5

Constant species (occurrence frequencies)

Fagus sylvatica	99.0	Galium odoratum	50.0
Viola reichenbachiana	42.0	Oxalis acetosella	41.0
Acer pseudoplatanus	41.0	Lamium galeobdolon	40.0
Dryopteris filix-mas	39.0	Hedera helix	35.0
Fraxinus excelsior	34.0	Mercurialis perennis	33.0
Lactuca muralis	32.0	Rubus fruticosus aggr.	31.0
Athyrium filix-femina	31.0	Corylus avellana	28.0
Carex sylvatica	27.0	Anemone nemorosa	27.0
Picea abies	26.0	Poa nemoralis	25.0
Euphorbia amygdaloides	25.0	Abies alba	25.0
Geranium robertianum	24.0	Prenanthes purpurea	23.0
Fragaria vesca	23.0	Carpinus betulus	22.0
Hieracium murorum	21.0	Sorbus aucuparia	20.0
Brachypodium sylvaticum	20.0	Quercus petraea	19.0
Melica uniflora	19.0	Sanicula europaea	18.0
Milium effusum	18.0	Carex digitata	18.0
Senecio nemorensis aggr.	17.0	Polygonatum multiflorum	17.0
Lonicera xylosteum	17.0	Hepatica nobilis	17.0
Rubus idaeus	16.0	Crataegus monogyna	16.0
Cardamine bulbifera	16.0	Acer campestre	16.0
Solidago virgaurea	15.0	Prunus avium	15.0
Paris quadrifolia	15.0	Lathyrus vernus	15.0
Daphne mezereum	15.0	Ajuga reptans	15.0
Sorbus aria aggr.	14.0	Luzula luzuloides	14.0
Epilobium montanum	14.0	Acer platanoides	14.0
Polygonatum verticillatum	13.0	Phyteuma spicatum	13.0
Urtica dioica	12.0	Rosa arvensis	12.0
Polytrichastrum formosum	12.0	Maianthemum bifolium	12.0
Circaea lutetiana	12.0	Asarum europaeum	12.0
Actaea spicata	12.0	Vicia sepium	11.0
Sambucus nigra	11.0	Polystichum aculeatum	11.0
Neottia nidus-avis	11.0	Ilex aquifolium	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Fagus sylvatica	99.0	Hedera helix	7.0
Galium odoratum	5.0		

T18 - [G16b] Fagus forest on acid soils

*Diagnostic species (phi coefficient * 100)*

Fagus sylvatica	29.3	Polytrichastrum formosum	19.8
Luzula luzuloides	19.0	Avenella flexuosa	15.8
Dicranella heteromalla	15.6		

Constant species (occurrence frequencies)

Fagus sylvatica	100.0	Avenella flexuosa	58.0
Vaccinium myrtillus	51.0	Polytrichastrum formosum	49.0
Sorbus aucuparia	37.0	Pteridium aquilinum	37.0
Quercus petraea	36.0	Luzula luzuloides	33.0
Picea abies	29.0	Rubus fruticosus aggr.	27.0
Oxalis acetosella	27.0	Dicranum scoparium	27.0
Ilex aquifolium	25.0	Carex pilulifera	24.0
Hieracium murorum	22.0	Abies alba	22.0
Lonicera periclymenum	19.0	Maianthemum bifolium	18.0
Betula pendula	18.0	Athyrium filix-femina	18.0
Quercus robur	17.0	Hypnum cupressiforme	17.0
Dryopteris dilatata	17.0	Dicranella heteromalla	17.0
Prenanthes purpurea	16.0	Pinus sylvestris	16.0
Luzula pilosa	16.0	Luzula sylvatica	15.0
Hedera helix	15.0	Veronica officinalis	14.0
Solidago virgaurea	14.0	Rubus idaeus	14.0
Poa nemoralis	14.0	Acer pseudoplatanus	14.0
Dryopteris carthusiana	13.0	Corylus avellana	13.0
Leucobryum glaucum	12.0	Castanea sativa	12.0
Blechnum spicant	12.0	Atrichum undulatum	12.0
Melampyrum pratense	11.0	Carpinus betulus	11.0
Calamagrostis arundinacea	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Fagus sylvatica	100.0	Vaccinium myrtillus	12.0
Avenella flexuosa	8.0		

T19 - [G17a] Temperate and submediterranean thermophilous deciduous forest

*Diagnostic species (phi coefficient * 100)*

Quercus pubescens	33.2	Quercus cerris	24.9
Fraxinus ornus	24.5	Carpinus orientalis	20.0
Quercus frainetto	19.5	Acer monspessulanum	19.2
Teucrium chamaedrys	17.6	Aegonychon purpureocaeruleum	17.6

Lonicera etrusca	16.7	Rubia peregrina	16.0
Crataegus monogyna	15.8	Ostrya carpinifolia	15.1
Cornus mas	15.1		
<i>Constant species (occurrence frequencies)</i>			
Quercus pubescens	57.0	Crataegus monogyna	53.0
Teucrium chamaedrys	35.0	Rubia peregrina	31.0
Fraxinus ornus	31.0	Dactylis glomerata	31.0
Prunus spinosa	29.0	Ligustrum vulgare	28.0
Rosa canina aggr.	26.0	Hedera helix	26.0
Juniperus communis subsp. communis	25.0	Brachypodium pinnatum	25.0
Quercus cerris	24.0	Acer campestre	24.0
Cornus sanguinea	23.0	Clinopodium vulgare	21.0
Viburnum lantana	19.0	Dioscorea communis	19.0
Brachypodium sylvaticum	19.0	Vincetoxicum hirundinaria	18.0
Sorbus torminalis	18.0	Ruscus aculeatus	18.0
Rubus ulmifolius	18.0	Quercus petraea	18.0
Cornus mas	18.0	Carex flacca	17.0
Tanacetum corymbosum	16.0	Poa nemoralis	16.0
Fragaria vesca	16.0	Euphorbia cyparissias	16.0
Asparagus acutifolius	16.0	Sorbus aria aggr.	15.0
Quercus ilex	15.0	Stachys officinalis	14.0
Lonicera etrusca	14.0	Hippocrepis emerus	14.0
Corylus avellana	14.0	Acer monspessulanum	14.0
Veronica chamaedrys	13.0	Ostrya carpinifolia	13.0
Buxus sempervirens	13.0	Amelanchier ovalis	13.0
Aegonychon purpureocaeruleum	13.0	Viola hirta	12.0
Rubus fruticosus aggr.	12.0	Clematis vitalba	12.0
Carpinus orientalis	12.0	Viola alba	11.0
Pyrus communis	11.0	Lathyrus niger	11.0
Juniperus oxycedrus	11.0	Hypericum perforatum	11.0
Hieracium murorum	11.0	Galium mollugo aggr.	11.0
Festuca heterophylla	11.0	Carex halleriana	11.0
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Quercus pubescens	41.0	Quercus cerris	12.0
Buxus sempervirens	9.0	Quercus petraea	7.0
Brachypodium pinnatum	7.0	Quercus frainetto	6.0
Quercus faginea	6.0	Ostrya carpinifolia	6.0
Carpinus orientalis	5.0		

T1A - [G17b] Mediterranean thermophilous deciduous forest

*Diagnostic species (phi coefficient * 100)*

Quercus ithaburensis	99.6	Asphodelus ramosus	58.1
Sarcopoterium spinosum	57.9	Theligonum cynocrambe	53.1
Rumex tuberosus	52.5	Tordylium apulum	46.9

Veronica cymbalaria	46.1	Leontodon tuberosus	46.1
Briza maxima	43.2	Phlomis fruticosa	43.0
Trifolium stellatum	42.8	Drimia maritima	41.6
Carduus pycnocephalus	41.0	Hordeum bulbosum	40.8
Hymenocarpus circinnatus	40.6	Sonchus bulbosus	40.3
Lagoecia cuminoides	39.1	Gagea graeca	38.3
Trifolium uniflorum	38.1	Urospermum picroides	38.0
Cynosurus echinatus	38.0	Anthemis chia	37.1
Biscutella didyma	36.5	Petrorhagia dubia	35.5
Cerastium comatum	35.4	Galium murale	35.1
Origanum onites	35.0	Anemone pavonina	34.8
Ballota acetabulosa	34.2	Anisantha madritensis	34.2
Oxalis pes-caprae	32.2	Lupinus angustifolius	32.1
Sherardia arvensis	32.0	Geranium lucidum	32.0
Parentucellia latifolia	31.5	Calicotome villosa	31.3
Lagurus ovatus	31.0	Ornithopus compressus	30.7
Aira elegantissima	29.8	Scandix pecten-veneris	29.5
Umbilicus horizontalis	29.4	Rhagadiolus stellatus	29.1
Asparagus acutifolius	29.0	Vicia hybrida	28.9
Trifolium physodes	28.7	Cistus creticus	28.4
Trifolium clypeatum	28.3	Fumaria macrocarpa	28.3
Arisarum vulgare	27.7	Rumex bucephalophorus	27.3
Anemone coronaria	27.2	Leopoldia comosa	27.1
Hypericum triquetrifolium	27.1	Trifolium grandiflorum	26.5
Myosotis incrassata	26.5	Trifolium campestre	26.2
Micromeria nervosa	25.4	Spartium junceum	25.3
Ziziphora capitata	25.0	Phleum subulatum	24.8
Anagyris foetida	24.7	Hypochaeris achyrophorus	24.4
Trifolium scabrum	24.2	Avena barbata	24.0
Trachynia distachya	23.2	Vicia articulata	23.0
Salvia fruticosa	23.0	Geranium molle	22.9
Pistacia terebinthus	22.8	Medicago arabica	22.7
Phagnalon rupestre	22.4	Centaurea raphanina	22.4
Vulpia ciliata	22.3	Pyrus spinosa	22.3
Knautia integrifolia	22.2	Crataegus orientalis	22.0
Crepis hellenica	21.8	Crepis foetida	21.8
Silene cretica	21.6	Ferula communis	21.5
Lathyrus laxiflorus	21.3	Cyclamen hederifolium	21.3
Crepis multiflora	21.3	Asparagus aphyllus	21.2
Cotoneaster nummularius	21.1	Campanula spatulata	21.1
Quercus coccifera	21.0	Trifolium infamia-ponertii	20.9
Quercus trojana	20.8	Trifolium angustifolium	20.6
Arabis verna	20.6	Cyclamen graecum	20.4
Acanthus spinosus	20.2	Hedypnois rhagadioloides	20.1
Tuberaria guttata	20.0	Galium aparine	20.0
Euphorbia peplus	19.7	Medicago orbicularis	19.6
Hordeum murinum	19.2	Hirschfeldia incana	18.9
Trifolium nigrescens	18.8	Fumana arabica	18.8

Selaginella denticulata	18.7	Cyclamen creticum	18.7
Carlina corymbosa	18.6	Dracunculus vulgaris	18.5
Satureja thymbra	18.1	Orlaya daucoides	18.1
Trifolium glomeratum	17.8	Viola sieheana	17.5
Rubia tenuifolia	17.4	Cerastium glomeratum	17.4
Picnomon acarna	17.3	Hypericum perforatum	17.3
Scandix australis	17.2	Trifolium tomentosum	16.8
Lamium moschatum	16.6	Glebionis coronaria	16.6
Verbascum lasianthum	16.5	Piptatherum miliaceum	16.5
Ophrys heldreichii	16.5	Ferulago humilis	16.5
Anacamptis sancta	16.5	Alkanna orientalis	16.5
Gypsophila tubulosa	16.4	Scaligeria napiformis	16.3
Cachrys cristata	16.3	Aegilops speltoides	16.3
Lupinus albus	16.2	Securigera parviflora	16.1
Micromeria cremnophila	16.1	Vicia villosa	15.9
Trifolium globosum	15.9	Echinaria capitata	15.9
Trifolium boissieri	15.8	Silene behen	15.8
Achnatherum bromoides	15.8	Aegilops comosa	15.8
Valerianella vesicaria	15.7	Leopoldia weissii	15.7
Himantoglossum robertianum	15.7	Carex illegitima	15.7
Aegilops neglecta	15.7	Crepis fraasii	15.6
Allium neapolitanum	15.5	Abies cilicica	15.4
Umbilicus rupestris	15.3	Teucrium polium aggr.	15.3
Ornithogalum nutans	15.2	Crepis dioscoridis	15.2
Scorzonera crocifolia	15.1	Quercus cerris	15.1
Plantago cretica	15.1	Cistus laurifolius	15.1
Bupleurum glumaceum	15.1		
<i>Constant species (occurrence frequencies)</i>			
Quercus ithaburensis	100.0	Dactylis glomerata	61.0
Asphodelus ramosus	58.0	Galium aparine	56.0
Sarcopoterium spinosum	42.0	Asparagus acutifolius	42.0
Trifolium campestre	39.0	Briza maxima	36.0
Theligonum cynocrambe	33.0	Sherardia arvensis	33.0
Cynosurus echinatus	33.0	Trifolium stellatum	31.0
Rumex tuberosus	31.0	Leontodon tuberosus	31.0
Drimia maritima	31.0	Tordylium apulum	28.0
Sonchus bulbosus	28.0	Veronica cymbalaria	25.0
Phlomis fruticosa	25.0	Carduus pycnocephalus	25.0
Anisantha madritensis	25.0	Urospermum picroides	22.0
Quercus coccifera	22.0	Leopoldia comosa	22.0
Lagurus ovatus	22.0	Hordeum bulbosum	22.0
Cistus creticus	22.0	Calicotome villosa	22.0
Arisarum vulgare	22.0	Trifolium scabrum	19.0
Spartium junceum	19.0	Scandix pecten-veneris	19.0
Quercus pubescens	19.0	Poa bulbosa	19.0
Pistacia terebinthus	19.0	Ornithopus compressus	19.0
Lagoecia cuminoides	19.0	Hymenocarpus circinnatus	19.0

Geranium molle	19.0	Geranium lucidum	19.0
Galium murale	19.0	Avena barbata	19.0
Aira elegantissima	19.0	Trifolium uniflorum	17.0
Trachynia distachya	17.0	Teucrium polium aggr.	17.0
Smilax aspera	17.0	Rumex bucephalophorus	17.0
Quercus cerris	17.0	Petrorhagia dubia	17.0
Parentucellia latifolia	17.0	Oxalis pes-caprae	17.0
Gagea graeca	17.0	Biscutella didyma	17.0
Anthemis chia	17.0	Anagallis arvensis	17.0
Vulpia ciliata	14.0	Tuberaria guttata	14.0
Trifolium angustifolium	14.0	Teucrium chamaedrys	14.0
Rhagadiolus stellatus	14.0	Pteridium aquilinum	14.0
Origanum onites	14.0	Lupinus angustifolius	14.0
Juniperus oxycedrus	14.0	Hypochaeris achyrophorus	14.0
Hordeum murinum	14.0	Cyclamen hederifolium	14.0
Crepis foetida	14.0	Cerastium glomeratum	14.0
Cerastium comatum	14.0	Carlina corymbosa	14.0
Ballota acetabulosa	14.0	Anisantha sterilis	14.0
Anemone pavonina	14.0	Vicia villosa	11.0
Vicia hybrida	11.0	Umbilicus horizontalis	11.0
Trifolium physodes	11.0	Senecio vulgaris	11.0
Pyrus spinosa	11.0	Piptatherum miliaceum	11.0
Phillyrea latifolia	11.0	Phagnalon rupestre	11.0
Medicago arabica	11.0	Lolium rigidum	11.0
Lathyrus laxiflorus	11.0	Hedypnois rhagadioloides	11.0
Geranium robertianum	11.0	Fraxinus ornus	11.0
Euphorbia peplus	11.0	Cyanus segetum	11.0
Catapodium rigidum	11.0	Brachypodium retusum	11.0
Bituminaria bituminosa	11.0	Asparagus aphyllus	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Quercus ithaburensis	94.0	Phlomis fruticosa	14.0
Sarcopoterium spinosum	11.0	Asphodelus ramosus	8.0
Oxalis pes-caprae	6.0	Cistus creticus	6.0
Brachypodium retusum	6.0		

T1B - [G18] Acidophilous Quercus forest

*Diagnostic species (phi coefficient * 100)*

Lonicera periclymenum	21.5	Quercus petraea	20.4
Polytrichastrum formosum	20.0	Pteridium aquilinum	19.7
Castanea sativa	19.6	Ilex aquifolium	17.4
Teucrium scorodonia	16.3		

Constant species (occurrence frequencies)

Quercus petraea	56.0	Pteridium aquilinum	54.0
Avenella flexuosa	51.0	Rubus fruticosus aggr.	50.0

Lonicera periclymenum	50.0	Polytrichastrum formosum	48.0
Quercus robur	47.0	Fagus sylvatica	39.0
Frangula alnus	36.0	Ilex aquifolium	35.0
Betula pendula	35.0	Castanea sativa	34.0
Sorbus aucuparia	31.0	Hedera helix	31.0
Teucrium scorodonia	29.0	Vaccinium myrtillus	28.0
Dicranum scoparium	27.0	Corylus avellana	26.0
Molinia caerulea aggr.	25.0	Carex pilulifera	25.0
Holcus mollis	23.0	Melampyrum pratense	22.0
Carpinus betulus	22.0	Calluna vulgaris	22.0
Pinus sylvestris	19.0	Thuidium tamariscinum	18.0
Pseudoscleropodium purum	16.0	Hypnum cupressiforme	15.0
Cytisus scoparius	15.0	Agrostis capillaris	14.0
Leucobryum glaucum	12.0	Hieracium murorum	12.0
Crataegus monogyna	12.0	Betula pubescens	12.0
Prunus avium	11.0	Populus tremula	11.0
Poa nemoralis	11.0	Pleurozium schreberi	11.0
Luzula luzuloides	11.0	Atrichum undulatum	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Quercus petraea	48.0	Quercus robur	36.0
Pteridium aquilinum	18.0	Castanea sativa	16.0
Avenella flexuosa	12.0	Rubus fruticosus aggr.	11.0
Vaccinium myrtillus	9.0	Molinia caerulea aggr.	7.0
Lonicera periclymenum	6.0		

T1C - [G19a] Temperate and boreal mountain Betula and Populus tremula forest on mineral soils

*Diagnostic species (phi coefficient * 100)*

Betula pubescens var. glabrata	31.6	Calamagrostis lapponica	30.3
Betula litwinowii	30.0	Phyllodoce caerulea	28.9
Cladonia ecmocyna	28.1	Pedicularis lapponica	27.6
Betula pubescens	24.8	Rhododendron caucasicum	24.3
Cladonia mediterranea	24.3	Stereocaulon paschale	23.1
Cladonia degenerans	22.3	Cladonia carneola	21.5
Vaccinium vitis-idaea	20.6	Vaccinium myrtillus	19.8
Vulpicidia pinastri	18.8	Cladonia mitis	18.4
Orthocaulis attenuatus	17.8	Empetrum nigrum aggr.	17.5
Cladonia crispata	17.3	Sanionia uncinata	17.2
Linnaea borealis	16.7	Stereodon pallescens	16.3
Dolichorrhiza caucasica	15.9	Salix starkeana	15.8
Lycopodium complanatum	15.8	Salix glauca	15.4
Avenella flexuosa	15.3	Brachythecium reflexum	15.2

Constant species (occurrence frequencies)

Vaccinium myrtillus	75.0	Betula pubescens	69.0
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Vaccinium vitis-idaea	59.0	Avenella flexuosa	58.0
Sorbus aucuparia	40.0	Dicranum scoparium	38.0
Solidago virgaurea	35.0	Empetrum nigrum aggr.	35.0
Pleurozium schreberi	32.0	Juniperus communis subsp. communis	31.0
Vaccinium uliginosum	24.0	Hylocomium splendens	24.0
Trientalis europaea	22.0	Picea abies	22.0
Linnaea borealis	21.0	Oxalis acetosella	20.0
Gymnocarpium dryopteris	17.0	Geranium sylvaticum aggr.	17.0
Festuca ovina	17.0	Anthoxanthum odoratum aggr.	16.0
Polytrichastrum formosum	15.0	Luzula pilosa	15.0
Epilobium angustifolium	15.0	Populus tremula	14.0
Calamagrostis arundinacea	14.0	Lycopodium annotinum	13.0
Betula pubescens var. glabrata	13.0	Polytrichum juniperinum	12.0
Phyllodoce caerulea	12.0	Luzula sylvatica	12.0
Cladonia mitis	12.0	Calamagrostis lapponica	12.0
Betula nana	12.0	Rubus idaeus	11.0
Rhytidiadelphus triquetrus	11.0	Polytrichum commune	11.0
Pedicularis lapponica	11.0	Melampyrum pratense	11.0
Cladonia rangiferina	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Betula pubescens	57.0	Vaccinium myrtillus	25.0
Empetrum nigrum aggr.	19.0	Betula pubescens var. glabrata	12.0
Betula litwinowii	10.0	Hylocomium splendens	9.0
Populus tremula	8.0	Stereocaulon paschale	7.0
Rhododendron caucasicum	6.0		

T1D - [G19b] Southern European mountain Betula and Populus tremula forest on mineral soils

*Diagnostic species (phi coefficient * 100)*

Betula pendula var. fontqueri	22.2	Betula pendula	22.1
Populus tremula	21.2	Cruciata glabra	17.7
Angelica razulii	16.3		

Constant species (occurrence frequencies)

Betula pendula	63.0	Corylus avellana	49.0
Pteridium aquilinum	43.0	Populus tremula	43.0
Rubus fruticosus aggr.	36.0	Fagus sylvatica	34.0
Avenella flexuosa	32.0	Fragaria vesca	30.0
Crataegus monogyna	29.0	Cruciata glabra	28.0
Fraxinus excelsior	27.0	Vaccinium myrtillus	26.0
Teucrium scorodonia	25.0	Juniperus communis subsp. communis	25.0
Poa nemoralis	24.0	Hepatica nobilis	24.0
Sorbus aucuparia	23.0	Salix caprea	23.0
Hedera helix	23.0	Ilex aquifolium	22.0
Brachypodium sylvaticum	22.0	Abies alba	22.0
Stellaria holostea	20.0	Viola reichenbachiana	18.0

Rubus idaeus	18.0	Rosa canina aggr.	18.0
Pinus sylvestris	18.0	Oxalis acetosella	18.0
Euphorbia amygdaloides	18.0	Sorbus aria aggr.	17.0
Lathyrus linifolius	17.0	Lonicera xylosteum	16.0
Lonicera periclymenum	16.0	Athyrium filix-femina	16.0
Veronica officinalis	15.0	Dactylis glomerata	15.0
Clematis vitalba	15.0	Castanea sativa	15.0
Viola canina	14.0	Veronica chamaedrys	14.0
Urtica dioica	14.0	Stachys officinalis	14.0
Solidago virgaurea	14.0	Rubus ulmifolius	14.0
Quercus robur	14.0	Quercus petraea	14.0
Prunus spinosa	14.0	Prunus avium	14.0
Dryopteris filix-mas	14.0	Dioscorea communis	14.0
Cornus sanguinea	14.0	Clinopodium vulgare	14.0
Calluna vulgaris	14.0	Anthoxanthum odoratum aggr.	14.0
Vicia sepium	13.0	Hylocomium splendens	13.0
Geranium robertianum	13.0	Quercus pubescens	12.0
Melica uniflora	12.0	Geum urbanum	12.0
Frangula alnus	12.0	Festuca heterophylla	12.0
Epilobium montanum	12.0	Blechnum spicant	12.0
Agrostis capillaris	12.0	Rhododendron ferrugineum	11.0
Potentilla erecta	11.0	Luzula nivea	11.0
Dryopteris affinis	11.0	Buxus sempervirens	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Betula pendula	60.0	Populus tremula	34.0
Corylus avellana	24.0	Pteridium aquilinum	15.0
Hedera helix	13.0	Vaccinium myrtillus	12.0
Rubus fruticosus aggr.	10.0	Avenella flexuosa	8.0
Betula pendula var. fontqueri	5.0		

T1E - [G1Aa] Carpinus and Quercus mesic deciduous forest

*Diagnostic species (phi coefficient * 100)*

Carpinus betulus	28.7	Acer campestre	19.6
Tilia cordata	16.9	Quercus petraea	16.7
Polygonatum multiflorum	16.7	Corylus avellana	15.6
Prunus avium	15.1		

Constant species (occurrence frequencies)

Carpinus betulus	70.0	Corylus avellana	53.0
Hedera helix	52.0	Quercus robur	47.0
Quercus petraea	46.0	Crataegus monogyna	43.0
Acer campestre	42.0	Rubus fruticosus aggr.	41.0
Fraxinus excelsior	39.0	Fagus sylvatica	36.0
Viola reichenbachiana	35.0	Prunus avium	33.0
Lamium galeobdolon	33.0	Brachypodium sylvaticum	31.0

Anemone nemorosa	31.0	Poa nemoralis	30.0
Carex sylvatica	29.0	Polygonatum multiflorum	28.0
Ligustrum vulgare	28.0	Geum urbanum	28.0
Stellaria holostea	27.0	Cornus sanguinea	26.0
Fragaria vesca	25.0	Galium odoratum	24.0
Euonymus europaeus	24.0	Tilia cordata	23.0
Dryopteris filix-mas	23.0	Acer pseudoplatanus	21.0
Rosa arvensis	20.0	Milium effusum	19.0
Dactylis glomerata	19.0	Crataegus laevigata	19.0
Ajuga reptans	19.0	Melica uniflora	18.0
Lonicera xylosteum	18.0	Euphorbia amygdaloides	18.0
Convallaria majalis	18.0	Mercurialis perennis	17.0
Geranium robertianum	17.0	Atrichum undulatum	17.0
Veronica chamaedrys	16.0	Sorbus torminalis	16.0
Prunus spinosa	16.0	Oxalis acetosella	16.0
Lathyrus vernus	16.0	Asarum europaeum	16.0
Aegopodium podagraria	16.0	Acer platanoides	16.0
Urtica dioica	15.0	Melica nutans	15.0
Lonicera periclymenum	15.0	Lactuca muralis	15.0
Sorbus aucuparia	14.0	Sambucus nigra	14.0
Ficaria verna	14.0	Carex digitata	14.0
Arum maculatum	14.0	Populus tremula	13.0
Moehringia trinervia	13.0	Glechoma hederacea	13.0
Galium aparine	13.0	Viburnum opulus	12.0
Maianthemum bifolium	12.0	Hieracium murorum	12.0
Campanula trachelium	12.0	Betula pendula	12.0
Athyrium filix-femina	12.0	Vicia sepium	11.0
Scrophularia nodosa	11.0	Rosa canina aggr.	11.0
Pulmonaria officinalis	11.0	Polytrichastrum formosum	11.0
Luzula pilosa	11.0	Hepatica nobilis	11.0
Eurhynchium striatum	11.0	Deschampsia cespitosa	11.0
Castanea sativa	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Carpinus betulus	45.0	Quercus robur	30.0
Quercus petraea	29.0	Hedera helix	20.0
Tilia cordata	9.0	Rubus fruticosus aggr.	9.0
Corylus avellana	9.0	Anemone nemorosa	8.0
Castanea sativa	6.0	Acer campestre	6.0

T1F - [G1Ab] Ravine forest

*Diagnostic species (phi coefficient * 100)*

Fraxinus excelsior	27.1	Acer pseudoplatanus	25.5
Ulmus glabra	24.9	Mercurialis perennis	21.0
Lamium galeobdolon	20.4	Dryopteris filix-mas	17.7
Tilia platyphyllos	16.5	Asplenium scolopendrium	16.4

Corylus avellana	16.0	Lunaria rediviva	15.7
Geranium robertianum	15.6	Sambucus nigra	15.3
<i>Constant species (occurrence frequencies)</i>			
Fraxinus excelsior	82.0	Acer pseudoplatanus	65.0
Corylus avellana	55.0	Lamium galeobdolon	48.0
Dryopteris filix-mas	44.0	Urtica dioica	42.0
Hedera helix	42.0	Mercurialis perennis	41.0
Fagus sylvatica	41.0	Geranium robertianum	39.0
Rubus fruticosus aggr.	34.0	Geum urbanum	34.0
Sambucus nigra	33.0	Ulmus glabra	30.0
Oxalis acetosella	30.0	Crataegus monogyna	30.0
Galium odoratum	29.0	Brachypodium sylvaticum	29.0
Carpinus betulus	26.0	Athyrium filix-femina	26.0
Carex sylvatica	25.0	Polygonatum multiflorum	24.0
Anemone nemorosa	24.0	Aegopodium podagraria	24.0
Viola reichenbachiana	23.0	Lonicera xylosteum	22.0
Euonymus europaeus	22.0	Acer campestre	22.0
Stachys sylvatica	21.0	Paris quadrifolia	21.0
Galium aparine	21.0	Senecio nemorensis aggr.	20.0
Poa nemoralis	20.0	Arum maculatum	20.0
Acer platanoides	20.0	Quercus robur	19.0
Picea abies	19.0	Circaea lutetiana	19.0
Prunus avium	18.0	Impatiens noli-tangere	18.0
Tilia platyphyllos	17.0	Plagiomnium undulatum	17.0
Milium effusum	17.0	Cornus sanguinea	17.0
Asarum europaeum	17.0	Ficaria verna	16.0
Rubus idaeus	15.0	Glechoma hederacea	15.0
Sorbus aucuparia	14.0	Primula elatior	14.0
Ligustrum vulgare	14.0	Actaea spicata	14.0
Stellaria holostea	13.0	Quercus petraea	13.0
Lactuca muralis	13.0	Eurhynchium striatum	13.0
Dryopteris dilatata	13.0	Alliaria petiolata	13.0
Tilia cordata	12.0	Fragaria vesca	12.0
Asplenium scolopendrium	12.0	Ajuga reptans	12.0
Abies alba	12.0	Stellaria nemorum	11.0
Pulmonaria officinalis	11.0	Prunus spinosa	11.0
Polystichum aculeatum	11.0	Melica uniflora	11.0
Clematis vitalba	11.0	Campanula trachelium	11.0
Alnus glutinosa	11.0	Adoxa moschatellina	11.0
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Fraxinus excelsior	59.0	Acer pseudoplatanus	34.0
Hedera helix	13.0	Corylus avellana	13.0
Mercurialis perennis	11.0	Ulmus glabra	8.0
Tilia platyphyllos	8.0	Rubus fruticosus aggr.	6.0
Lamium galeobdolon	6.0	Fagus sylvatica	6.0

T1G - [G1Ba] *Alnus cordata* forest

*Diagnostic species (phi coefficient * 100)*

<i>Alnus cordata</i>	98.7	<i>Geranium versicolor</i>	54.1
<i>Lamium flexuosum</i>	51.1	<i>Polystichum setiferum</i>	46.2
<i>Ranunculus lanuginosus</i>	38.9	<i>Chaerophyllum temulum</i>	36.7
<i>Aremonia agrimonoides</i>	36.5	<i>Helleborus lividus</i>	35.1
<i>Lathyrus venetus</i>	34.5	<i>Crepis leontodontoides</i>	33.9
<i>Rubus ulmifolius</i>	32.5	<i>Arisarum proboscideum</i>	30.2
<i>Clematis vitalba</i>	30.1	<i>Potentilla micrantha</i>	29.5
<i>Anemone apennina</i>	28.5	<i>Pteridium aquilinum</i>	27.8
<i>Calystegia silvatica</i>	27.5	<i>Hypericum hircinum</i>	26.9
<i>Bryonia dioica</i>	26.7	<i>Cyclamen repandum</i>	25.8
<i>Ficus carica</i>	25.0	<i>Geranium lucidum</i>	24.6
<i>Viola alba</i>	23.7	<i>Acer cappadocicum</i>	23.2
<i>Geranium robertianum</i>	23.0	<i>Luzula forsteri</i>	22.9
<i>Cardamine chelidonia</i>	22.5	<i>Brachypodium sylvaticum</i>	22.5
<i>Festuca heterophylla</i>	20.4	<i>Lactuca muralis</i>	19.3
<i>Oenanthe pimpinelloides</i>	18.9	<i>Salix brutia</i>	18.4
<i>Melissa officinalis</i>	18.4	<i>Sanicula europaea</i>	18.1
<i>Castanea sativa</i>	18.1	<i>Geranium nodosum</i>	18.0
<i>Scutellaria columnae</i>	17.9	<i>Leopoldia comosa</i>	17.8
<i>Salvia glutinosa</i>	17.6	<i>Euphorbia semiperfoliata</i>	17.6
<i>Allium triquetrum</i>	17.5	<i>Asperula taurina</i>	17.2
<i>Lamium bifidum</i>	16.8	<i>Juglans regia</i>	16.8
<i>Clinopodium vulgare</i>	16.7	<i>Dioscorea communis</i>	16.6
<i>Cymbalaria hepaticifolia</i>	16.4	<i>Geum urbanum</i>	16.2
<i>Melica uniflora</i>	16.1	<i>Dactylorhiza saccifera</i>	15.7
<i>Crocus corsicus</i>	15.7	<i>Lilium bulbiferum</i>	15.4
<i>Stachys sylvatica</i>	15.3	<i>Carex depauperata</i>	15.3
<i>Salix eleagnos</i>	15.1	<i>Vinca major</i>	15.0
<i>Daphne laureola</i>	15.0		

Constant species (occurrence frequencies)

<i>Alnus cordata</i>	100.0	<i>Pteridium aquilinum</i>	79.0
<i>Rubus ulmifolius</i>	62.0	<i>Brachypodium sylvaticum</i>	62.0
<i>Geranium robertianum</i>	59.0	<i>Clematis vitalba</i>	55.0
<i>Polystichum setiferum</i>	52.0	<i>Hedera helix</i>	48.0
<i>Ranunculus lanuginosus</i>	45.0	<i>Poa trivialis</i>	45.0
<i>Lactuca muralis</i>	41.0	<i>Geum urbanum</i>	41.0
<i>Crataegus monogyna</i>	41.0	<i>Urtica dioica</i>	38.0
<i>Rubus fruticosus aggr.</i>	38.0	<i>Chaerophyllum temulum</i>	34.0
<i>Geranium versicolor</i>	34.0	<i>Castanea sativa</i>	34.0
<i>Aremonia agrimonoides</i>	34.0	<i>Lamium flexuosum</i>	31.0
<i>Viola reichenbachiana</i>	28.0	<i>Stellaria media</i>	28.0
<i>Stachys sylvatica</i>	28.0	<i>Sanicula europaea</i>	28.0
<i>Melica uniflora</i>	28.0	<i>Lathyrus venetus</i>	28.0

Fragaria vesca	28.0	Festuca heterophylla	28.0
Dioscorea communis	28.0	Clinopodium vulgare	28.0
Viola alba	24.0	Sambucus nigra	24.0
Potentilla micrantha	24.0	Luzula forsteri	24.0
Salvia glutinosa	21.0	Ilex aquifolium	21.0
Fraxinus ornus	21.0	Dactylis glomerata	21.0
Bryonia dioica	21.0	Rubia peregrina	17.0
Helleborus lividus	17.0	Galium aparine	17.0
Daphne laureola	17.0	Cyclamen repandum	17.0
Crepis leontodontoides	17.0	Cornus sanguinea	17.0
Circaea lutetiana	17.0	Ajuga reptans	17.0
Teucrium scorodonia	14.0	Rumex sanguineus	14.0
Rosa canina aggr.	14.0	Quercus pubescens	14.0
Quercus ilex	14.0	Prunus spinosa	14.0
Prunella vulgaris	14.0	Primula acaulis	14.0
Moehringia trinervia	14.0	Mercurialis perennis	14.0
Leopoldia comosa	14.0	Juglans regia	14.0
Geranium lucidum	14.0	Galium rotundifolium	14.0
Ficus carica	14.0	Carex pendula	14.0
Bellis perennis	14.0	Anemone apennina	14.0
Acer opalus aggr.	14.0	Acer campestre	14.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Alnus cordata	100.0	Pteridium aquilinum	41.0
Rubus fruticosus aggr.	14.0	Sanicula europaea	10.0
Rubus ulmifolius	10.0	Hedera helix	7.0
Clematis vitalba	7.0	Brachypodium sylvaticum	7.0

T1H - [G1C] Broadleaved deciduous plantation of non site-native trees

*Diagnostic species (phi coefficient * 100)*

Robinia pseudoacacia	47.4	Populus x canadensis	30.1
Quercus rubra	23.9	Sambucus nigra	19.3
Chelidonium majus	15.1		

Constant species (occurrence frequencies)

Robinia pseudoacacia	54.0	Urtica dioica	44.0
Sambucus nigra	43.0	Rubus fruticosus aggr.	43.0
Crataegus monogyna	37.0	Hedera helix	36.0
Galium aparine	36.0	Geum urbanum	32.0
Quercus robur	30.0	Fraxinus excelsior	28.0
Corylus avellana	26.0	Euonymus europaeus	21.0
Glechoma hederacea	20.0	Quercus rubra	19.0
Dactylis glomerata	19.0	Prunus spinosa	18.0
Lonicera periclymenum	18.0	Cornus sanguinea	18.0
Rubus caesius	17.0	Populus x canadensis	17.0
Geranium robertianum	17.0	Brachypodium sylvaticum	17.0

Rosa canina aggr.	15.0	Ligustrum vulgare	15.0
Poa trivialis	14.0	Carpinus betulus	14.0
Prunus avium	13.0	Poa nemoralis	13.0
Chelidonium majus	13.0	Acer campestre	13.0
Quercus petraea	12.0	Clematis vitalba	12.0
Castanea sativa	12.0	Betula pendula	12.0
Alliaria petiolata	12.0	Acer pseudoplatanus	12.0
Sorbus aucuparia	11.0	Rubus ulmifolius	11.0
Galeopsis tetrahit	11.0	Ficaria verna	11.0
Fagus sylvatica	11.0	Anthriscus sylvestris	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Robinia pseudoacacia	50.0	Quercus rubra	17.0
Populus x canadensis	15.0	Rubus fruticosus aggr.	14.0
Hedera helix	12.0	Urtica dioica	10.0
Sambucus nigra	7.0		

T21 - [G21] Mediterranean evergreen Quercus forest

*Diagnostic species (phi coefficient * 100)*

Quercus ilex	43.1	Rubia peregrina	36.8
Quercus rotundifolia	34.8	Phillyrea latifolia	34.7
Smilax aspera	33.4	Arbutus unedo	32.7
Asparagus acutifolius	31.7	Quercus suber	29.4
		Asplenium adiantum-nigrum subsp. onopteris	27.4
Lonicera implexa	27.5	Ruscus aculeatus	26.1
Carex distachya	26.4	Rhamnus alaternus	23.7
Erica arborea	24.7	Daphne gnidium	23.4
Viburnum tinus	23.5	Pistacia terebinthus	22.7
Quercus coccifera	23.2	Juniperus oxycedrus	21.3
Pistacia lentiscus	21.4	Osyris alba	20.3
Brachypodium retusum	20.7	Clematis flammula	19.3
Phillyrea angustifolia	19.4	Euphorbia characias	18.3
Cistus salviifolius	18.4	Lonicera etrusca	17.5
Rosa sempervirens	17.5	Myrtus communis	15.8
Carex halleriana	17.2	Cyclamen repandum	15.5
Olea europaea	15.6		

Constant species (occurrence frequencies)

Rubia peregrina	69.0	Quercus ilex	58.0
Ruscus aculeatus	41.0	Smilax aspera	40.0
Asparagus acutifolius	40.0	Phillyrea latifolia	35.0
Hedera helix	34.0	Arbutus unedo	32.0
Erica arborea	27.0	Crataegus monogyna	27.0
Brachypodium retusum	26.0	Quercus rotundifolia	25.0
Quercus pubescens	25.0	Rubus ulmifolius	24.0
Pistacia lentiscus	24.0	Juniperus oxycedrus	24.0

Lonicera implexa	23.0	Rhamnus alaternus	22.0
Quercus coccifera	22.0	Teucrium chamaedrys	20.0
Dioscorea communis	20.0	Asplenium adiantum-nigrum subsp. onopteris	20.0
Daphne gnidium	19.0	Quercus suber	18.0
Carex halleriana	18.0	Viburnum tinus	17.0
Pistacia terebinthus	17.0	Dactylis glomerata	17.0
Cistus salviifolius	17.0	Phillyrea angustifolia	16.0
Lonicera etrusca	15.0	Fraxinus ornus	15.0
Clematis flammula	15.0	Carex distachya	15.0
Osyris alba	14.0	Brachypodium sylvaticum	14.0
Viola alba	13.0	Thymus vulgaris	13.0
Rosa sempervirens	13.0	Olea europaea	12.0
Euphorbia characias	12.0	Buxus sempervirens	12.0
Prunus spinosa	11.0	Myrtus communis	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Quercus ilex	54.0	Quercus rotundifolia	24.0
Quercus suber	16.0	Quercus coccifera	8.0
Buxus sempervirens	7.0	Hedera helix	5.0

T22 - [G22] Mainland laurophyllous forest

*Diagnostic species (phi coefficient * 100)*

Laurus nobilis	63.8	Prunus lusitanica subsp. lusitanica	60.4
Asplenium adiantum-nigrum subsp. onopteris	39.2	Ruscus aculeatus	34.5
Viburnum tinus	33.5	Smilax aspera	30.4
Acanthus mollis	30.1	Celtis australis	27.4
Dioscorea communis	26.2	Rubia peregrina	23.9
Ficus carica	23.6	Polystichum setiferum	23.4
Fraxinus angustifolia	22.7	Vitis vinifera	21.9
Rubus ulmifolius	21.9	Arbutus unedo	21.9
Rosa sempervirens	21.0	Arum italicum	20.8
Hedera helix	20.6	Osmunda regalis	20.0
Orobanche hederæ	20.0	Asparagus acutifolius	19.6
Hypericum androsaemum	19.1	Rhamnus alaternus	18.4
Allium subhirsutum	17.0	Dryopteris affinis	16.9
Cystopteris fragilis subsp. diaphana	16.8	Blechnum spicant	16.6
Quercus ilex	16.3	Carex reuteriana	16.1
Arundo plinii	16.0	Arisarum vulgare	15.8
Cyclamen hederifolium	15.4		

Constant species (occurrence frequencies)

Hedera helix	73.0	Laurus nobilis	61.0
Ruscus aculeatus	60.0	Rubia peregrina	49.0
Dioscorea communis	44.0	Smilax aspera	41.0

Rubus ulmifolius	41.0	Prunus lusitanica subsp. lusitanica	38.0
Asplenium adiantum-nigrum subsp. onopteris	37.0	Lonicera periclymenum	36.0
Viburnum tinus	30.0	Asparagus acutifolius	28.0
Rubus fruticosus aggr.	27.0	Athyrium filix-femina	27.0
Quercus ilex	24.0	Brachypodium sylvaticum	24.0
Arbutus unedo	24.0	Pteridium aquilinum	23.0
Polystichum setiferum	23.0	Alnus glutinosa	23.0
Fraxinus angustifolia	22.0	Blechnum spicant	21.0
Crataegus monogyna	20.0	Arum italicum	20.0
Rhamnus alaternus	19.0	Rosa sempervirens	18.0
Clematis vitalba	18.0	Asplenium trichomanes	17.0
Dryopteris affinis	16.0	Corylus avellana	16.0
Phillyrea latifolia	15.0	Ilex aquifolium	15.0
Vitis vinifera	14.0	Quercus pubescens	14.0
Hypericum androsaemum	14.0	Erica arborea	14.0
Geranium robertianum	13.0	Ficus carica	13.0
Celtis australis	13.0	Acanthus mollis	13.0
Salix cinerea	12.0	Quercus robur	12.0
Osmunda regalis	12.0	Arisarum vulgare	12.0
Teucrium scorodonia	11.0	Frangula alnus	11.0
Castanea sativa	11.0	Carex pendula	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Laurus nobilis	60.0	Prunus lusitanica subsp. lusitanica	38.0
Hedera helix	24.0	Ruscus aculeatus	6.0
Viburnum tinus	5.0		

T23 - [G23] Macaronesian laurophyllous forest

*Diagnostic species (phi coefficient * 100)*

Morella faya	74.6	Laurus azorica	71.1
Ilex canariensis	68.7	Dryopteris oligodonta	59.8
Ageratina adenophora	53.6	Persea indica	49.0
Apollonias barbujana	48.9	Phyllis nobla	48.3
Diplazium caudatum	45.8	Ilex perado	45.7
Picconia excelsa	45.4	Semele androgyna	42.4
Ocotea foetens	42.3	Hypericum xylosteifolium	42.0
Globularia salicina	41.8	Ranunculus cortusifolius	41.6
Galium scabrum	40.8	Davallia canariensis	40.8
Erica arborea	39.5	Pericallis appendiculata	38.8
Pericallis papyracea	38.7	Ixanthus viscosus	38.7
Laurus novocanariensis	38.5	Jasminum odoratissimum	38.3
Hypericum grandifolium	38.2	Viburnum tinus	36.6
Maytenus umbellata	34.6	Dryopteris intermedia	34.6
Dryochloa donax	34.6	Cryptotaenia elegans	34.6
Canarina canariensis	34.6	Urtica morifolia	34.5

Visnea mocanera	34.1	Polypodium cambricum subsp. macaronesicum	33.9
Pinus canariensis	31.7	Rubia fruticosa	31.5
Asplenium adiantum-nigrum subsp. onopteris	30.1	Picconia azorica	30.0
Limonium angustebracteatum	30.0	Hypericum glandulosum	30.0
Hedera maderensis	30.0	Dryopteris crispifolia	30.0
Carex hochstetterana	30.0	Ageratina riparia	30.0
Hedera azorica	29.9	Geranium reuteri	29.9
Frangula azorica	29.9	Rubus bollei	29.8
Pittosporum undulatum	29.8	Heberdenia excelsa	29.7
Asplenium hemionitis	29.7	Vaccinium cylindraceum	29.6
Aichryson laxum	29.6	Asparagus umbellatus	29.1
Aeonium glandulosum	28.9	Hypericum canariense	28.7
Woodwardia radicans	28.1	Sibthorpia europaea	26.2
Rubus palmensis	24.5	Carex canariensis	24.5
Teucrium betonicum	24.4	Smilax canariensis	24.4
Sambucus palmensis	24.4	Pteris incompleta	24.4
Prunus lusitanica subsp. hixa	24.4	Dracunculus canariensis	24.4
Carex vulcani	24.4	Parietaria debilis	24.3
Luzula canariensis	24.3	Dryopteris guanchica	24.3
Isoplexis canariensis	24.2	Culcita macrocarpa	24.2
Bosea yervamora	24.2	Echium nervosum	24.1
Adiantum reniforme	24.1	Umbilicus gaditanus	24.0
Rhamnus crenulata	24.0	Juniperus brevifolia	24.0
Euphorbia mellifera	24.0	Erysimum bicolor	24.0
Dryopteris aemula	24.0	Dactylis smithii	24.0
Cedronella canariensis	24.0	Asparagus scoparius	24.0
Gennaria diphylla	23.8	Zantedeschia aethiopica	23.7
Opuntia tuna	23.7	Eucalyptus globulus	23.7
Carlina salicifolia	22.8	Andryala pinnatifida	22.3
Bituminaria bituminosa	19.5	Cytinus hypocistis	18.5
Sideritis canariensis	17.3	Scrophularia calliantha	17.3
Sanicula azorica	17.3	Polypodium cambricum subsp. azoricum	17.3
Chamaemeles coriacea	17.3	Gesnouinia arborea	17.3
Aeonium glutinosum	17.3	Elaphoglossum semicylindricum	17.3
Dryopteris aitonia	17.3	Convolvulus massonii	17.3
Clethra arborea	17.3	Bellis azorica	17.3
Arceuthobium azoricum	17.3	Platanthera micrantha	17.2
Pericallis steetzii	17.2	Convolvulus canariensis	17.2
Cardamine caldeiranum	17.2	Vaccinium padifolium	17.1
Selaginella kraussiana	17.1	Maytenus canariensis	17.1
Genista maderensis	17.1	Euphorbia azorica	17.1
Eriobotrya japonica	17.1	Cytisus filipes	17.1
Hypericum foliosum	17.0	Asparagus asparagoides	17.0
Sibthorpia peregrina	16.9	Rhamnus glandulosa	16.9
Phoenix dactylifera	16.9	Asparagus plocamoides	16.9
Argyranthemum webbii	16.9	Withania aristata	16.8

Trichomanes speciosum	16.8	Tolpis azorica	16.8
Sonchus congestus	16.8	Pericallis aurita	16.8
Delairea odorata	16.7	Bystropogon canariensis	16.7
Pericallis murrayi	16.6	Deschampsia foliosa	16.6
Cyrtomium falcatum	16.6	Cyclosorus pozoi	16.5
Luzula elegans	16.4	Pteridium aquilinum	16.3
Pericallis tussilaginis	16.3	Helichrysum melaleucum	16.3
Erica scoparia	16.2	Cystopteris fragilis subsp. diaphana	16.2
Arbutus canariensis	16.2	Salix canariensis	16.1
Ferula linkii	15.9	Sonchus pinnatus	15.7
Solanum chenopodioides	15.4	Hymenophyllum tunbrigense	15.2
Erigeron karvinskianus	15.1	Artemisia thuscula	15.1
<i>Constant species (occurrence frequencies)</i>			
Morella faya	58.0	Laurus azorica	52.0
Erica arborea	52.0	Pteridium aquilinum	48.0
Ilex canariensis	48.0	Dryopteris oligodonta	36.0
Viburnum tinus	33.0	Rubia peregrina	30.0
Ageratina adenophora	30.0	Asplenium adiantum-nigrum subsp. onopteris	27.0
Rubus ulmifolius	24.0	Phyllis nobla	24.0
Persea indica	24.0	Apollonias barbujana	24.0
Picconia excelsa	21.0	Ilex perado	21.0
Galium scabrum	21.0	Diplazium caudatum	21.0
Dioscorea communis	21.0	Brachypodium sylvaticum	21.0
Semele androgyna	18.0	Ranunculus cortusifolius	18.0
Ocotea foetens	18.0	Hypericum xylosteifolium	18.0
Globularia salicina	18.0	Davallia canariensis	18.0
Pericallis papyracea	15.0	Pericallis appendiculata	15.0
Laurus novocanariensis	15.0	Jasminum odoratissimum	15.0
Ixanthus viscosus	15.0	Hypericum grandifolium	15.0
Erica scoparia	15.0	Bituminaria bituminosa	15.0
Visnea mocanera	12.0	Urtica morifolia	12.0
Smilax aspera	12.0	Rubia fruticosa	12.0
Polypodium cambricum subsp. macaronesicum	12.0	Pinus canariensis	12.0
Maytenus umbellata	12.0	Hedera helix	12.0
Dryopteris intermedia	12.0	Drymochloa donax	12.0
Cryptotaenia elegans	12.0	Canarina canariensis	12.0
Blechnum spicant	12.0		
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Laurus azorica	39.0	Dryopteris oligodonta	15.0
Ilex canariensis	12.0	Apollonias barbujana	12.0
Persea indica	9.0	Morella faya	9.0
Laurus novocanariensis	9.0	Erica arborea	9.0
Diplazium caudatum	9.0	Viburnum tinus	6.0
Picconia excelsa	6.0	Picconia azorica	6.0

Ocotea foetens	6.0	Ilex perado	6.0
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T24 - [G24] Olea europaea-Ceratonia siliqua forest

*Diagnostic species (phi coefficient * 100)*

Pistacia lentiscus	69.3	Olea europaea	46.0
Prasium majus	39.8	Ceratonia siliqua	38.1
Arisarum vulgare	35.9	Smilax aspera	31.6
Brachypodium retusum	29.6	Calicotome villosa	28.8
Juniperus phoenicea	27.8	Myrtus communis	27.2
Asparagus acutifolius	26.8	Drimia maritima	26.3
Clematis cirrhosa	24.6	Thymbra capitata	24.5
Phagnalon rupestre	24.2	Asparagus aphyllus	23.2
Rhamnus lycioides	22.1	Lonicera implexa	21.2
Piptatherum coerulescens	21.1	Euphorbia dendroides	20.9
Asphodelus ramosus	20.5	Rhamnus alaternus	20.4
Cistus monspeliensis	20.3	Rubia peregrina	20.1
Chamaerops humilis	20.1	Phillyrea angustifolia	19.8
Piptatherum miliaceum	18.6	Pinus halepensis	18.5
Crucianella latifolia	17.5	Phillyrea latifolia	17.4
Melica minuta	17.2	Phlomis lanata	17.0
Sonchus bulbosus	16.6	Teucrium fruticans	15.8
Scaligeria napiformis	15.8	Sarcopoterium spinosum	15.8
Rubia tenuifolia	15.8		

Constant species (occurrence frequencies)

Pistacia lentiscus	98.0	Olea europaea	45.0
Smilax aspera	43.0	Rubia peregrina	41.0
Brachypodium retusum	40.0	Asparagus acutifolius	38.0
Arisarum vulgare	29.0	Prasium majus	27.0
Juniperus phoenicea	23.0	Myrtus communis	22.0
Ceratonia siliqua	22.0	Rhamnus alaternus	21.0
Lonicera implexa	20.0	Pinus halepensis	19.0
Phillyrea latifolia	19.0	Dactylis glomerata	19.0
Calicotome villosa	19.0	Phillyrea angustifolia	18.0
Drimia maritima	16.0	Cistus monspeliensis	16.0
Asphodelus ramosus	16.0	Quercus ilex	14.0
Quercus coccifera	14.0	Thymbra capitata	13.0
Rosmarinus officinalis	12.0	Rhamnus lycioides	12.0
Piptatherum miliaceum	12.0	Phagnalon rupestre	12.0
Daphne gnidium	12.0	Clematis flammula	12.0
Cistus salviifolius	12.0	Asparagus aphyllus	12.0
Ruscus aculeatus	11.0	Clematis cirrhosa	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Pistacia lentiscus	93.0	Ceratonia siliqua	10.0
Brachypodium retusum	5.0		

T25 - [G25a] Phoenix theophrasti vegetation

*Diagnostic species (phi coefficient * 100)*

Phoenix theophrasti	99.9	Nerium oleander	71.9
Juncus heldreichianus	59.9	Arum concinatum	48.9
Ballota pseudodictamnus	48.6	Anthemis chia	46.7
Vitex agnus-castus	45.2	Carex hispida	44.2
Oxalis pes-caprae	42.1	Thymbra capitata	38.7
Pistacia lentiscus	38.5	Rostraria cristata	37.0
Centaurea redempta	35.1	Malva unguiculata	34.6
Brassica cretica	34.6	Anisantha madritensis	34.2
Lotus preslii	33.9	Equisetum ramosissimum	33.8
Scorzonera cretica	33.1	Malcolmia flexuosa	33.1
Anogramma leptophylla	33.1	Lithodora hispidula	32.9
Cichorium spinosum	32.8	Piptatherum miliaceum	32.7
Capparis spinosa	32.7	Securigera securidaca	32.6
Petromarula pinnata	32.2	Phlomis lanata	31.8
Parietaria cretica	31.8	Reichardia picroides	31.3
Dracunculus vulgaris	31.3	Silene sedoides	31.2
Hymenocarpus circinnatus	31.1	Orlaya daucoides	30.9
Satureja thymbra	30.8	Geranium purpureum	30.8
Asphodeline lutea	30.8	Arisarum vulgare	30.6
Salvia fruticosa	30.0	Lamyropsis cynaroides	29.8
Ruta chalepensis	29.5	Schoenus nigricans	29.4
Centaurea raphanina	29.4	Lotus ornithopodioides	29.3
Theligonum cynocrambe	28.7	Valantia hispida	28.5
Scirpoides holoschoenus	28.4	Rubus sanctus	28.4
Tordylium apulum	27.9	Plantago afra	27.9
Hordeum bulbosum	27.9	Cynosurus elegans	27.7
Crepis neglecta	26.6	Centranthus calcitrapae	26.6
Sarcopoterium spinosum	26.0	Hirschfeldia incana	25.8
Euphorbia dendroides	25.4	Urospermum picroides	25.2
Leontodon tuberosus	24.3	Torilis nodosa	23.7
Asparagus aphyllus	23.2	Allium subhirsutum	23.2
Ficus carica	23.1	Symphyotrichum squamatum	22.9
Hypochaeris achyrophorus	22.4	Sonchus bulbosus	21.8
Umbilicus rupestris	21.6	Rumex bucephalophorus	21.6
Trifolium stellatum	21.5	Medicago polymorpha	21.0
Juncus maritimus	20.6	Drimia maritima	20.6
Samolus valerandi	20.1	Vitis vinifera	20.0
Smilax aspera	18.7	Dittrichia viscosa	17.7
Hordeum murinum	17.4	Spartium junceum	17.1
Trifolium campestre	17.0	Bituminaria bituminosa	16.4
Leopoldia comosa	16.3	Myrtus communis	16.0

Constant species (occurrence frequencies)

<i>Phoenix theophrasti</i>	100.0	<i>Nerium oleander</i>	62.0
<i>Pistacia lentiscus</i>	50.0	<i>Juncus heldreichianus</i>	38.0
<i>Vitex agnus-castus</i>	25.0	<i>Trifolium campestre</i>	25.0
<i>Thymbra capitata</i>	25.0	<i>Smilax aspera</i>	25.0
<i>Schoenus nigricans</i>	25.0	<i>Scirpoides holoschoenus</i>	25.0
<i>Rostraria cristata</i>	25.0	<i>Reichardia picroides</i>	25.0
<i>Piptatherum miliaceum</i>	25.0	<i>Oxalis pes-caprae</i>	25.0
<i>Geranium purpureum</i>	25.0	<i>Equisetum ramosissimum</i>	25.0
<i>Carex hispida</i>	25.0	<i>Ballota pseudodictamnus</i>	25.0
<i>Arum concinatum</i>	25.0	<i>Arisarum vulgare</i>	25.0
<i>Anthemis chia</i>	25.0	<i>Anisantha madritensis</i>	25.0
<i>Vitis vinifera</i>	12.0	<i>Valantia hispida</i>	12.0
<i>Urospermum picroides</i>	12.0	<i>Umbilicus rupestris</i>	12.0
<i>Trifolium stellatum</i>	12.0	<i>Torilis nodosa</i>	12.0
<i>Tordylium apulum</i>	12.0	<i>Theligonum cynocrambe</i>	12.0
<i>Symphyotrichum squamatum</i>	12.0	<i>Spartium junceum</i>	12.0
<i>Sonchus bulbosus</i>	12.0	<i>Silene sedoides</i>	12.0
<i>Securigera securidaca</i>	12.0	<i>Scorzonera cretica</i>	12.0
<i>Satureja thymbra</i>	12.0	<i>Sarcopoterium spinosum</i>	12.0
<i>Samolus valerandi</i>	12.0	<i>Salvia fruticosa</i>	12.0
<i>Ruta chalepensis</i>	12.0	<i>Rumex conglomeratus</i>	12.0
<i>Rumex bucephalophorus</i>	12.0	<i>Rubus sanctus</i>	12.0
<i>Plantago afra</i>	12.0	<i>Phragmites australis</i>	12.0
<i>Phlomis lanata</i>	12.0	<i>Petromarula pinnata</i>	12.0
<i>Parietaria cretica</i>	12.0	<i>Orlaya daucoides</i>	12.0
<i>Olea europaea</i>	12.0	<i>Myrtus communis</i>	12.0
<i>Medicago polymorpha</i>	12.0	<i>Malva unguiculata</i>	12.0
<i>Malcolmia flexuosa</i>	12.0	<i>Lotus preslii</i>	12.0
<i>Lotus ornithopodioides</i>	12.0	<i>Lithodora hispidula</i>	12.0
<i>Leopoldia comosa</i>	12.0	<i>Leontodon tuberosus</i>	12.0
<i>Lamyropsis cynaroides</i>	12.0	<i>Lactuca serriola</i>	12.0
<i>Juncus maritimus</i>	12.0	<i>Hypochaeris achyrophorus</i>	12.0
<i>Hymenocarpus circinnatus</i>	12.0	<i>Hordeum murinum</i>	12.0
<i>Hordeum bulbosum</i>	12.0	<i>Hirschfeldia incana</i>	12.0
<i>Galium aparine</i>	12.0	<i>Ficus carica</i>	12.0
<i>Euphorbia dendroides</i>	12.0	<i>Drimia maritima</i>	12.0
<i>Dracunculus vulgaris</i>	12.0	<i>Dittrichia viscosa</i>	12.0
<i>Dioscorea communis</i>	12.0	<i>Cynosurus elegans</i>	12.0
<i>Cynodon dactylon</i>	12.0	<i>Crepis neglecta</i>	12.0
<i>Cichorium spinosum</i>	12.0	<i>Centranthus calcitrapae</i>	12.0
<i>Centaurea redempta</i>	12.0	<i>Centaurea raphanina</i>	12.0
<i>Capsella bursa-pastoris</i>	12.0	<i>Capparis spinosa</i>	12.0
<i>Brassica cretica</i>	12.0	<i>Brachypodium retusum</i>	12.0
<i>Bituminaria bituminosa</i>	12.0	<i>Asphodeline lutea</i>	12.0
<i>Asparagus aphyllus</i>	12.0	<i>Asparagus acutifolius</i>	12.0
<i>Anogramma leptophylla</i>	12.0	<i>Anisantha sterilis</i>	12.0
<i>Anagallis arvensis</i>	12.0	<i>Allium subhirsutum</i>	12.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Phoenix theophrasti	100.0	Nerium oleander	62.0
Pistacia lentiscus	12.0	Carex hispida	12.0

T26 - [G25b] Phoenix canariensis vegetation

*Diagnostic species (phi coefficient * 100)*

Phoenix canariensis	99.9	Dittrichia viscosa	86.1
Sideritis cretica subsp. spicata	81.5	Descurainia millefolia	81.5
Echium aculeatum	81.4	Euphorbia berthelotii	81.3
Micromeria varia	80.7	Periploca angustifolia	79.9
Phagnalon saxatile	75.9	Pallenis spinosa	74.5
Hyparrhenia hirta	71.8	Bituminaria bituminosa	63.7
Cistus monspeliensis	63.4	Ricinus communis	56.9
Nicotiana glauca	56.6	Lycium intricatum	55.5
Euphorbia regis-jubae	54.9	Launaea arborescens	54.7

Constant species (occurrence frequencies)

Phoenix canariensis	100.0	Dittrichia viscosa	100.0
Sideritis cretica subsp. spicata	67.0	Phagnalon saxatile	67.0
Periploca angustifolia	67.0	Pallenis spinosa	67.0
Micromeria varia	67.0	Hyparrhenia hirta	67.0
Euphorbia berthelotii	67.0	Echium aculeatum	67.0
Descurainia millefolia	67.0	Cistus monspeliensis	67.0
Bituminaria bituminosa	67.0	Ricinus communis	33.0
Nicotiana glauca	33.0	Lycium intricatum	33.0
Launaea arborescens	33.0	Euphorbia regis-jubae	33.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Phoenix canariensis	100.0	Dittrichia viscosa	33.0
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T27 - [G26] Ilex aquifolium forest

*Diagnostic species (phi coefficient * 100)*

Ilex aquifolium	45.7	Lonicera periclymenum	18.5
Pteridium aquilinum	17.9	Isoethecium myosuroides	16.6
Hedera helix	16.1		

Constant species (occurrence frequencies)

Ilex aquifolium	100.0	Hedera helix	59.0
Pteridium aquilinum	53.0	Lonicera periclymenum	47.0
Fagus sylvatica	47.0	Quercus petraea	43.0
Rubus fruticosus aggr.	34.0	Corylus avellana	29.0
Avenella flexuosa	28.0	Polytrichastrum formosum	27.0
Vaccinium myrtillus	22.0	Crataegus monogyna	22.0
Thuidium tamariscinum	21.0	Sorbus aucuparia	21.0

Hypnum cupressiforme	20.0	Frangula alnus	19.0
Dicranum scoparium	19.0	Quercus robur	18.0
Teucrium scorodonia	17.0	Castanea sativa	17.0
Betula pubescens	17.0	Ruscus aculeatus	16.0
Oxalis acetosella	15.0	Mnium hornum	15.0
Dryopteris dilatata	15.0	Fraxinus excelsior	14.0
Betula pendula	14.0	Leucobryum glaucum	13.0
Rubus ulmifolius	12.0	Geranium robertianum	12.0
Blechnum spicant	12.0	Sanicula europaea	11.0
Isoetes myosuroides	11.0	Dryopteris filix-mas	11.0
Carpinus betulus	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Ilex aquifolium	100.0	Quercus petraea	17.0
Fagus sylvatica	12.0	Hedera helix	11.0
Pteridium aquilinum	9.0	Quercus robur	7.0
Avenella flexuosa	7.0		

T28 - [G27] Macaronesian heathy forest

*Diagnostic species (phi coefficient * 100)*

Morella faya	83.7	Ilex canariensis	68.3
Erica arborea	54.8	Galium scabrum	52.0
Cistus symphytifolius	47.6	Davallia canariensis	47.3
Arbutus canariensis	44.2	Dryopteris oligodonta	43.9
Hypericum canariense	43.7	Pinus canariensis	42.2
Habenaria tridactylites	39.7	Laurus novocanariensis	39.5
Laurus azorica	38.5	Andryala pinnatifida	38.4
Asplenium adiantum-nigrum subsp. onopteris	37.9	Erica scoparia	35.3
Urtica morifolia	34.2	Genista canariensis	34.2
Ilex perado	34.1	Visnea mocanera	33.9
Micromeria hyssopifolia	32.7	Vaccinium padifolium	28.1
Luzula canariensis	28.0	Festuca petraea	28.0
Sonchus congestus	27.9	Rubus bollei	27.9
Myosotis latifolia	27.9	Ixanthus viscosus	27.9
Pericallis murrayi	27.7	Cedronella canariensis	27.7
Gennaria diphylla	27.6	Pericallis tussilaginis	27.5
Adenocarpus foliolosus	27.5	Eucalyptus globulus	27.4
Hypericum xylosteifolium	27.3	Hypericum grandifolium	27.2
Prunus lusitanica subsp. hixa	26.9	Phyllis nobla	26.7
Woodwardia radicans	26.1	Corema album	25.4
Viburnum tinus	23.8	Cistus monspeliensis	20.3
Teucrium francoi	19.9	Aichryson punctatum	19.9
Polystichum falcinellum	19.8	Carduus clavulatus	19.8
Bunium brevifolium	19.8	Aeonium cuneatum	19.8
Plantago leiopetala	19.7	Odontites holliana	19.7

Cytisus proliferus	19.7	Cistus chinamadensis	19.7
Aeonium ciliatum	19.7	Sibthorpia peregrina	19.6
Dryopteris guanchica	19.6	Cryptotaenia elegans	19.6
Bupleurum salicifolium	19.6	Argyranthemum webbii	19.6
Rhamnus glandulosa	19.5	Lathyrus odoratus	19.5
Pericallis papyracea	19.4	Aeonium lindleyi	19.4
Juniperus brevifolia	19.3	Hypericum reflexum	19.3
Heberdenia excelsa	19.3	Echium nervosum	19.3
Bystropogon canariensis	19.3	Helichrysum melaleucum	19.0
		Polypodium cambricum subsp.	
Jasminum odoratissimum	18.7	macaronesticum	18.5
Globularia salicina	18.2	Plantago arborescens	18.1
Scilla haemorrhoidalis	17.9	Lavandula canariensis	17.7
Daphne gnidium	17.7	Neotinea maculata	17.2
Micromeria varia	17.2	Paragymnopteris marantae	16.8
Ageratina adenophora	16.7		
<i>Constant species (occurrence frequencies)</i>			
Erica arborea	76.0	Morella faya	72.0
Ilex canariensis	48.0	Pteridium aquilinum	44.0
		Asplenium adiantum-nigrum subsp.	
Erica scoparia	36.0	onopteris	36.0
Galium scabrum	32.0	Davallia canariensis	24.0
Cistus symphytifolius	24.0	Viburnum tinus	20.0
Pinus canariensis	20.0	Hypericum canariense	20.0
Dryopteris oligodonta	20.0	Arbutus canariensis	20.0
Rubus ulmifolius	16.0	Laurus novocanariensis	16.0
Laurus azorica	16.0	Habenaria tridactylites	16.0
Daphne gnidium	16.0	Cistus monspeliensis	16.0
Andryala pinnatifida	16.0	Visnea mocanera	12.0
Urtica morifolia	12.0	Micromeria hyssopifolia	12.0
Ilex perado	12.0	Genista canariensis	12.0
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Erica arborea	60.0	Erica scoparia	36.0
Cistus symphytifolius	12.0	Morella faya	8.0
Corema album	8.0	Cistus monspeliensis	8.0
Arbutus canariensis	8.0		

T29 - [G28] Broadleaved evergreen plantation of non site-native trees

*Diagnostic species (phi coefficient * 100)*

Eucalyptus globulus	54.3	Acacia saligna	38.1
Pseudarrhenatherum longifolium	34.5	Eucalyptus camaldulensis	31.0
Retama raetam subsp. raetam	30.9	Acacia dealbata	30.7
Pinus radiata	30.0	Centaurea sphaerocephala	29.1
Piptatherum miliaceum	27.3	Daboecia cantabrica	27.1

Euphorbia terracina	25.9	Ulex gallii	25.7
Agrostis curtisii	23.9	Rubus ulmifolius	23.7
Astragalus lagopoides	22.3	Trachycarpus fortunei	22.2
Astragalus oreades	22.2	Acacia melanoxylon	22.2
Acacia mearnsii	22.2	Acacia karroo	22.2
Astragalus solandri	22.1	Astracantha diphtherites	22.1
Conringia persica	22.0	Hypericum lysimachioides	21.9
Retama monosperma	21.5	Carpobrotus acinaciformis	21.1
Agrostemma gracile	20.9	Alcea acaulis	20.8
Minuartia isaurica	20.3	Cytisus commutatus	20.0
Lonicera japonica	19.2	Genista salzmannii	18.9
Hypericum atomarium	18.2	Sonchus bulbosus	18.1
Pinus pinaster	18.1	Arbutus unedo	18.0
Ephedra fragilis	17.1	Erica cinerea	17.0
Rubia peregrina	16.9	Pteridium aquilinum	16.9
Genista monspessulana	16.9	Silene sericea	16.8
Alnus cordata	16.8	Hypericum perforatum	16.0
Lagurus ovatus	15.7	Smilax aspera	15.0
<i>Constant species (occurrence frequencies)</i>			
Pteridium aquilinum	50.0	Rubus ulmifolius	45.0
Rubia peregrina	35.0	Hedera helix	35.0
Quercus robur	30.0	Eucalyptus globulus	30.0
Salix cinerea	25.0	Pseudarrhenatherum longifolium	25.0
Smilax aspera	20.0	Rubus fruticosus aggr.	20.0
Piptatherum miliaceum	20.0	Pinus pinaster	20.0
Erica cinerea	20.0	Arbutus unedo	20.0
Viola riviniana aggr.	15.0	Ulex gallii	15.0
Ulex europaeus	15.0	Teucrium scorodonia	15.0
Erica arborea	15.0	Dioscorea communis	15.0
Daboecia cantabrica	15.0	Cistus salviifolius	15.0
Castanea sativa	15.0	Calluna vulgaris	15.0
Asparagus acutifolius	15.0	Agrostis curtisii	15.0
Acacia saligna	15.0		
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Eucalyptus globulus	25.0	Pteridium aquilinum	20.0
Rubus ulmifolius	15.0	Acacia saligna	15.0
Sonchus bulbosus	10.0	Ulex europaeus	5.0
Trachycarpus fortunei	5.0	Rubus fruticosus aggr.	5.0
Robinia pseudoacacia	5.0	Quercus rubra	5.0
Pinus radiata	5.0	Pinus halepensis	5.0
Myrtus communis	5.0	Hypericum montanum	5.0
Holcus lanatus	5.0	Hedera helix	5.0
Eucalyptus camaldulensis	5.0	Erigeron canadensis	5.0
Cytisus scoparius	5.0	Cirsium arvense	5.0
Centaurea sphaerocephala	5.0	Calystegia sepium	5.0
Calluna vulgaris	5.0	Calamagrostis epigejos	5.0

Asparagus acutifolius	5.0	Anthoxanthum odoratum aggr.	5.0
Agrostis canina	5.0	Acacia melanoxylon	5.0
Acacia mearnsii	5.0	Acacia karroo	5.0
Acacia dealbata	5.0		

T31 - [G31a] Temperate mountain Picea forest

*Diagnostic species (phi coefficient * 100)*

Picea abies	29.0	Homogyne alpina	28.5
Luzula luzulina	26.2	Calamagrostis villosa	25.5
Oxalis acetosella	24.2	Luzula sylvatica	23.6
Melampyrum sylvaticum	23.5	Prenanthes purpurea	22.6
Hieracium murorum	21.9	Veronica urticifolia	20.9
Valeriana tripteris	20.3	Vaccinium myrtillus	20.1
Lonicera nigra	19.4	Sorbus aucuparia	18.8
Polygonatum verticillatum	18.8	Abies alba	18.7
Dicranum scoparium	18.6	Larix decidua	18.0
Gymnocarpium dryopteris	17.3	Huperzia selago	17.1
Gentiana asclepiadea	16.8	Dryopteris dilatata	15.8
Adenostyles alliariae	15.7	Rosa pendulina	15.5
Maianthemum bifolium	15.4		

Constant species (occurrence frequencies)

Picea abies	100.0	Vaccinium myrtillus	75.0
Oxalis acetosella	70.0	Sorbus aucuparia	66.0
Hieracium murorum	48.0	Dicranum scoparium	48.0
Avenella flexuosa	41.0	Abies alba	40.0
Fagus sylvatica	38.0	Athyrium filix-femina	38.0
Hylocomium splendens	37.0	Prenanthes purpurea	36.0
Luzula sylvatica	36.0	Homogyne alpina	36.0
Solidago virgaurea	35.0	Polytrichastrum formosum	35.0
Maianthemum bifolium	35.0	Rubus idaeus	32.0
Dryopteris dilatata	32.0	Vaccinium vitis-idaea	31.0
Fragaria vesca	29.0	Dryopteris filix-mas	28.0
Melampyrum sylvaticum	27.0	Acer pseudoplatanus	27.0
Senecio nemorensis aggr.	26.0	Calamagrostis villosa	26.0
Pleurozium schreberi	25.0	Luzula luzuloides	25.0
Rhytidadelphus triquetrus	24.0	Polygonatum verticillatum	24.0
Gymnocarpium dryopteris	24.0	Lactuca muralis	21.0
Veronica urticifolia	19.0	Larix decidua	19.0
Valeriana tripteris	18.0	Viola reichenbachiana	17.0
Lonicera nigra	17.0	Gentiana asclepiadea	17.0
Veronica officinalis	16.0	Phyteuma spicatum	16.0
Paris quadrifolia	16.0	Lycopodium annotinum	16.0
Lamium galeobdolon	16.0	Daphne mezereum	16.0
Calamagrostis arundinacea	16.0	Viola biflora	14.0
Rosa pendulina	14.0	Luzula pilosa	14.0

Luzula luzulina	14.0	Huperzia selago	14.0
Dryopteris carthusiana	14.0	Rubus fruticosus aggr.	13.0
Plagiochila asplenioides	13.0	Petasites albus	13.0
Mercurialis perennis	13.0	Melica nutans	13.0
Hypnum cupressiforme	13.0	Carex digitata	13.0
Calamagrostis varia	13.0	Adenostyles alliariae	13.0
Rhytiadelphus loreus	12.0	Orthilia secunda	12.0
Epilobium montanum	12.0	Ajuga reptans	12.0
Rubus saxatilis	11.0	Phegopteris connectilis	11.0
Luzula nivea	11.0	Galium odoratum	11.0
Carex sylvatica	11.0	Blechnum spicant	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Picea abies	100.0	Vaccinium myrtillus	21.0
Hylocomium splendens	8.0	Oxalis acetosella	7.0
Calamagrostis villosa	6.0		

T32 - [G31b] Temperate mountain Abies forest

*Diagnostic species (phi coefficient * 100)*

Abies alba	48.6	Prenanthes purpurea	29.0
Lonicera nigra	27.1	Oxalis acetosella	23.7
Galium rotundifolium	20.3	Fagus sylvatica	19.9
Drymochloa sylvatica	19.4	Luzula nivea	18.8
Polygonatum verticillatum	18.7	Hieracium murorum	18.1
Dryopteris filix-mas	17.9	Athyrium filix-femina	17.6
Veronica urticifolia	16.6	Rubus idaeus	16.4
Picea abies	16.4	Epilobium montanum	16.1
Senecio nemorensis aggr.	16.0	Sorbus aucuparia	15.9
Galium odoratum	15.9	Sambucus racemosa	15.2

Constant species (occurrence frequencies)

Abies alba	98.0	Fagus sylvatica	72.0
Oxalis acetosella	69.0	Picea abies	60.0
Sorbus aucuparia	57.0	Vaccinium myrtillus	46.0
Dryopteris filix-mas	46.0	Prenanthes purpurea	45.0
Athyrium filix-femina	45.0	Rubus idaeus	43.0
Rubus fruticosus aggr.	41.0	Hieracium murorum	40.0
Fragaria vesca	38.0	Viola reichenbachiana	37.0
Acer pseudoplatanus	36.0	Corylus avellana	35.0
Polytrichastrum formosum	34.0	Galium odoratum	34.0
Lactuca muralis	32.0	Lamium galeobdolon	30.0
Dryopteris dilatata	30.0	Dicranum scoparium	30.0
Senecio nemorensis aggr.	29.0	Geranium robertianum	28.0
Avenella flexuosa	27.0	Hylocomium splendens	26.0
Solidago virgaurea	25.0	Maianthemum bifolium	25.0
Epilobium montanum	25.0	Polygonatum verticillatum	24.0

Lonicera nigra	24.0	Dryopteris carthusiana	23.0
Carex sylvatica	23.0	Paris quadrifolia	21.0
Thuidium tamariscinum	20.0	Mercurialis perennis	20.0
Carex digitata	20.0	Veronica officinalis	19.0
Sorbus aria aggr.	19.0	Lonicera xylosteum	19.0
Fraxinus excelsior	19.0	Sanicula europaea	18.0
Rhytiadelphus triquetrus	18.0	Luzula sylvatica	18.0
Luzula pilosa	18.0	Galium rotundifolium	18.0
Ajuga reptans	18.0	Sambucus racemosa	17.0
Drymochloa sylvatica	17.0	Phyteuma spicatum	16.0
Luzula nivea	16.0	Hedera helix	15.0
Gymnocarpium dryopteris	15.0	Veronica urticifolia	14.0
Luzula luzuloides	14.0	Atrichum undulatum	14.0
Rosa pendulina	13.0	Plagiomnium undulatum	13.0
Ilex aquifolium	13.0	Hepatica nobilis	13.0
Eurhynchium striatum	13.0	Actaea spicata	13.0
Rhytiadelphus loreus	12.0	Pteridium aquilinum	12.0
Pinus sylvestris	12.0	Euphorbia amygdaloides	12.0
Quercus petraea	11.0	Poa nemoralis	11.0
Moehringia trinervia	11.0	Melica nutans	11.0
Lathyrus vernus	11.0	Daphne mezereum	11.0
Anemone nemorosa	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Abies alba	98.0	Oxalis acetosella	11.0
Vaccinium myrtillus	10.0	Fagus sylvatica	9.0
Picea abies	8.0	Rubus fruticosus aggr.	6.0
Hylocomium splendens	6.0		

T33 - [G31c] Mediterranean mountain Abies forest

*Diagnostic species (phi coefficient * 100)*

Abies borisii-regis	71.7	Aremonia agrimonoides	56.0
Galium rotundifolium	38.1	Campanula spatulata	37.5
Helleborus odorus	34.4	Doronicum orientale	33.6
Clinopodium grandiflorum	31.9	Geranium versicolor	28.8
Abies cephalonica	27.8	Lactuca muralis	25.5
Digitalis laevigata	25.5	Abies pinsapo	25.0
Cardamine chelidonia	24.2	Lathyrus laxiflorus	23.4
Sanicula europaea	21.9	Daphne laureola	21.4
Juniperus oxycedrus	20.8	Silene italica	20.4
Lathyrus venetus	20.0	Dactylorhiza saccifera	19.4
Cyclamen hederifolium	19.4	Luzula forsteri	19.3
Geocaryum capillifolium	19.3	Lilium chalcedonicum	19.0
Potentilla micrantha	18.8	Sedum cepaea	18.7
Hieracium bracteolatum	17.8	Myosotis sylvatica	17.6
Drymochloa drymeja	17.4	Pteridium aquilinum	17.1

Digitalis ferruginea	17.0	Trifolium grandiflorum	16.6
Trisetum laconicum	16.5	Epipactis helleborine	16.4
Cynosurus echinatus	16.3	Trifolium physodes	16.2
Pinus nigra	16.2	Trifolium pignanii	16.0
Hypopitys monotropa	16.0	Rosa pulverulenta	15.7
Viola alba	15.4	Ostrya carpinifolia	15.4
Viola reichenbachiana	15.2	Geranium lucidum	15.1
Galium hellenicum	15.1	Phlomis samia	15.0

Constant species (occurrence frequencies)

Aremonia agrimonoides	59.0	Abies borisii-regis	55.0
Lactuca muralis	54.0	Pteridium aquilinum	50.0
Fagus sylvatica	46.0	Fragaria vesca	42.0
Galium rotundifolium	41.0	Brachypodium sylvaticum	40.0
Viola reichenbachiana	39.0	Rubus fruticosus aggr.	37.0
Sanicula europaea	33.0	Veronica chamaedrys	32.0
Abies alba	30.0	Melica uniflora	26.0
Juniperus oxycedrus	26.0	Helleborus odoratus	26.0
Hedera helix	26.0	Daphne laureola	25.0
Euphorbia amygdaloides	23.0	Poa nemoralis	21.0
Luzula forsteri	20.0	Ilex aquifolium	20.0
Galium odoratum	20.0	Clinopodium grandiflorum	20.0
Clinopodium vulgare	19.0	Campanula spatulata	19.0
Dactylis glomerata	18.0	Pinus nigra	17.0
Myosotis sylvatica	17.0	Luzula sylvatica	17.0
Lapsana communis	17.0	Epipactis helleborine	17.0
Doronicum orientale	17.0	Viola alba	15.0
Silene italica	15.0	Geranium robertianum	15.0
Potentilla micrantha	14.0	Ostrya carpinifolia	14.0
Neottia nidus-avis	14.0	Lathyrus venetus	14.0
Sanguisorba minor	13.0	Hieracium murorum	13.0
Cardamine bulbifera	13.0	Acer pseudoplatanus	13.0
Quercus coccifera	12.0	Lathyrus laxiflorus	12.0
Geranium versicolor	12.0	Drymochloa drymeja	12.0
Cynosurus echinatus	12.0	Cyclamen hederifolium	12.0
Quercus cerris	11.0	Orthilia secunda	11.0
Geum urbanum	11.0	Dryopteris filix-mas	11.0
Campanula patula	11.0	Bellis perennis	11.0
Acer opalus aggr.	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Abies borisii-regis	55.0	Abies alba	30.0
Fagus sylvatica	16.0	Pteridium aquilinum	9.0
Abies cephalonica	8.0	Abies pinsapo	7.0
Rubus fruticosus aggr.	6.0		

T34 - [G32] Temperate subalpine Larix, Pinus cembra and Pinus uncinata forest

*Diagnostic species (phi coefficient * 100)*

Larix decidua	51.0	Rhododendron ferrugineum	49.9
Pinus uncinata	49.0	Pinus cembra	46.1
Homogyne alpina	31.4	Juniperus communis subsp. nana	29.9
Lonicera caerulea	29.6	Sorbus chamaemespilus	25.7
Calamagrostis villosa	24.6	Festuca flavescens	22.2
Valeriana tripteris	20.7	Rosa pendulina	20.7
Alnus viridis	20.2	Melampyrum sylvaticum	19.5
Polystichum lonchitis	19.4	Rhododendron hirsutum	18.2
Vaccinium myrtillus	17.9	Luzula nivea	17.5
Soldanella alpina	17.4	Luzula sylvatica	17.4
Hieracium prenanthoides	17.2	Pulsatilla alpina	16.9
Peucedanum ostruthium	16.6	Saxifraga cuneifolia	16.3
Campanula scheuchzeri	16.2	Geranium sylvaticum aggr.	16.0
Valeriana montana	15.7	Clematis alpina	15.7
Viola biflora	15.1		

Constant species (occurrence frequencies)

Vaccinium myrtillus	69.0	Larix decidua	60.0
Sorbus aucuparia	46.0	Rhododendron ferrugineum	46.0
Avenella flexuosa	46.0	Vaccinium vitis-idaea	44.0
Picea abies	44.0	Homogyne alpina	42.0
Pinus uncinata	37.0	Hieracium murorum	33.0
Dicranum scoparium	32.0	Hylocomium splendens	31.0
Oxalis acetosella	30.0	Juniperus communis subsp. nana	29.0
Solidago virgaurea	28.0	Pinus cembra	28.0
Luzula sylvatica	27.0	Rhytiadelphus triquetrus	26.0
Calamagrostis villosa	26.0	Juniperus communis subsp. communis	25.0
Melampyrum sylvaticum	23.0	Geranium sylvaticum aggr.	23.0
Rubus idaeus	22.0	Pleurozium schreberi	21.0
Sesleria caerulea	20.0	Rosa pendulina	20.0
Valeriana tripteris	19.0	Anthoxanthum odoratum aggr.	19.0
Lotus corniculatus	18.0	Vaccinium uliginosum	17.0
Hepatica nobilis	17.0	Luzula nivea	16.0
Campanula scheuchzeri	16.0	Abies alba	16.0
Viola biflora	15.0	Lonicera caerulea	15.0
Veratrum album	14.0	Sorbus chamaemespilus	14.0
Prenanthes purpurea	14.0	Fragaria vesca	14.0
Daphne mezereum	14.0	Potentilla erecta	13.0
Calluna vulgaris	13.0	Calamagrostis varia	13.0
Sorbus aria aggr.	12.0	Soldanella alpina	12.0
Pulsatilla alpina	12.0	Polytrichastrum formosum	12.0
Polystichum lonchitis	12.0	Gymnocarpium dryopteris	12.0
Carduus defloratus aggr.	12.0	Bellidiastrum michelii	12.0
Alnus viridis	12.0	Valeriana montana	11.0
Rubus saxatilis	11.0	Rhododendron hirsutum	11.0
Pinus mugo	11.0	Lycopodium annotinum	11.0

Huperzia selago	11.0	Euphorbia cyparissias	11.0
Erica carnea	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Larix decidua	43.0	Pinus uncinata	35.0
Vaccinium myrtillus	30.0	Rhododendron ferrugineum	22.0
Pinus cembra	12.0	Hylocomium splendens	6.0
Calamagrostis villosa	6.0		

T35 - [G34a] Temperate continental Pinus sylvestris forest

*Diagnostic species (phi coefficient * 100)*

Pinus sylvestris	30.7	Dicranum polysetum	21.5
Chimaphila umbellata	19.3	Pleurozium schreberi	18.3
Vaccinium myrtillus	15.9	Dicranum undulatum	15.1
Betula pendula	15.1		

Constant species (occurrence frequencies)

Pinus sylvestris	100.0	Vaccinium myrtillus	61.0
Pleurozium schreberi	57.0	Betula pendula	44.0
Vaccinium vitis-idaea	42.0	Quercus robur	40.0
Calluna vulgaris	40.0	Sorbus aucuparia	39.0
Avenella flexuosa	38.0	Picea abies	37.0
Frangula alnus	34.0	Melampyrum pratense	31.0
Festuca ovina	31.0	Dicranum scoparium	30.0
Juniperus communis subsp. communis	27.0	Luzula pilosa	24.0
Hylocomium splendens	24.0	Dicranum polysetum	24.0
Quercus petraea	23.0	Agrostis capillaris	20.0
Pteridium aquilinum	19.0	Fagus sylvatica	19.0
Polytrichastrum formosum	18.0	Pilosella officinarum	18.0
Fragaria vesca	18.0	Trientalis europaea	15.0
Solidago virgaurea	15.0	Rumex acetosella	15.0
Rubus fruticosus aggr.	15.0	Molinia caerulea aggr.	15.0
Hieracium murorum	15.0	Veronica officinalis	14.0
Rubus idaeus	14.0	Leucobryum glaucum	14.0
Hypnum cupressiforme	14.0	Calamagrostis arundinacea	14.0
Pohlia nutans	13.0	Maianthemum bifolium	13.0
Dryopteris carthusiana	13.0	Calamagrostis epigejos	13.0
Anthoxanthum odoratum aggr.	13.0	Populus tremula	12.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Pinus sylvestris	97.0	Pleurozium schreberi	27.0
Vaccinium myrtillus	22.0	Avenella flexuosa	9.0
Vaccinium vitis-idaea	5.0	Molinia caerulea aggr.	5.0

T36 - [G34b] Temperate and submediterranean montane Pinus sylvestris-Pinus nigra forest

*Diagnostic species (phi coefficient * 100)*

Amelanchier ovalis	52.3	Sorbus aria aggr.	36.9
Epipactis atrorubens	34.5	Polygala chamaebuxus	33.4
Berberis vulgaris	29.2	Lavandula angustifolia	29.0
Calamagrostis varia	27.8	Juniperus communis subsp. communis	27.4
Achnatherum calamagrostis	26.7	Pinus nigra	26.3
Pinus sylvestris	26.1	Erica carnea	25.6
Cytisophyllum sessilifolium	25.4	Carex humilis	24.8
Cotoneaster tomentosus	23.8	Viburnum lantana	23.3
Buphthalmum salicifolium	22.9	Teucrium chamaedrys	22.6
Buxus sempervirens	21.8	Sesleria caerulea	20.3
Genista cinerea	19.6	Hippocrepis emerus	19.2
Globularia cordifolia	19.2	Hieracium murorum	18.8
Teucrium montanum	18.7	Carex alba	18.5
Genista pilosa	18.4	Cytisus purpureus	18.2
Carduus defloratus aggr.	17.9	Anthericum ramosum	17.9
Quercus pubescens	17.8	Leontodon incanus	17.8
Arctostaphylos uva-ursi	17.8	Acer opalus aggr.	17.7
Goodyera repens	16.7	Brachypodium pinnatum	15.0

Constant species (occurrence frequencies)

Pinus sylvestris	87.0	Sorbus aria aggr.	64.0
Amelanchier ovalis	64.0	Juniperus communis subsp. communis	63.0
Teucrium chamaedrys	46.0	Hieracium murorum	42.0
Viburnum lantana	39.0	Quercus pubescens	33.0
Carex humilis	33.0	Brachypodium pinnatum	33.0
Crataegus monogyna	32.0	Polygala chamaebuxus	30.0
Picea abies	29.0	Euphorbia cyparissias	29.0
Calamagrostis varia	29.0	Lotus corniculatus	28.0
Epipactis atrorubens	28.0	Sesleria caerulea	27.0
Pinus nigra	27.0	Buxus sempervirens	27.0
Fagus sylvatica	26.0	Berberis vulgaris	26.0
Lonicera xylosteum	25.0	Fragaria vesca	25.0
Corylus avellana	24.0	Carex flacca	24.0
Hepatica nobilis	23.0	Campanula rotundifolia	23.0
Erica carnea	22.0	Vincetoxicum hirundinaria	21.0
Sanguisorba minor	21.0	Lavandula angustifolia	21.0
Hippocrepis emerus	21.0	Cornus sanguinea	21.0
Teucrium montanum	20.0	Pimpinella saxifraga	20.0
Genista pilosa	20.0	Cytisophyllum sessilifolium	20.0
Ligustrum vulgare	19.0	Buphthalmum salicifolium	19.0
Solidago virgaurea	18.0	Anthericum ramosum	18.0
Sorbus aucuparia	17.0	Hippocrepis comosa	17.0
Dicranum scoparium	17.0	Carlina vulgaris	17.0
Carduus defloratus aggr.	17.0	Bromopsis erecta	17.0
Acer opalus aggr.	17.0	Rosa canina aggr.	16.0
Pilosella officinarum	16.0	Hylocomium splendens	16.0

Carlina acaulis	16.0	Carex alba	16.0
Fraxinus excelsior	15.0	Rubia peregrina	14.0
Orthilia secunda	14.0	Helleborus foetidus	14.0
Carex halleriana	14.0	Arctostaphylos uva-ursi	14.0
Achnatherum calamagrostis	14.0	Viola hirta	13.0
Prunus spinosa	13.0	Prunella grandiflora	13.0
Molinia caerulea aggr.	13.0	Hypnum cupressiforme	13.0
Globularia cordifolia	13.0	Festuca ovina	13.0
Hedera helix	12.0	Cotoneaster tomentosus	12.0
Brachypodium sylvaticum	12.0	Anthyllis vulneraria	12.0
Acer pseudoplatanus	12.0	Tortella tortuosa	11.0
Scabiosa columbaria	11.0	Pseudoscleropodium purum	11.0
Prunus mahaleb	11.0	Polygonatum odoratum	11.0
Phyteuma orbiculare	11.0	Melica nutans	11.0
Genista cinerea	11.0	Galium mollugo aggr.	11.0
Dactylis glomerata	11.0	Aphyllanthes monspeliensis	11.0
Acer campestre	11.0	Abies alba	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Pinus sylvestris	79.0	Pinus nigra	19.0
Buxus sempervirens	16.0	Erica carnea	11.0
Sesleria caerulea	8.0	Brachypodium pinnatum	8.0
Carex humilis	5.0		

T37 - [G34c] Mediterranean montane Pinus sylvestris-Pinus nigra forest

*Diagnostic species (phi coefficient * 100)*

Pinus nigra	50.5	Cytisus balansae	41.6
Doronicum orientale	19.5	Ononis aragonensis	19.4
Arabis laxa	16.4	Luzula lactea	16.2
Erinacea anthyllis	16.2	Galium rotundifolium	16.1
Juniperus oxycedrus	15.2	Abies cephalonica	15.1
Galium peplidifolium	15.0		

Constant species (occurrence frequencies)

Pinus nigra	59.0	Pinus sylvestris	48.0
Avenella flexuosa	34.0	Juniperus communis subsp. communis	32.0
Pteridium aquilinum	29.0	Cytisus balansae	29.0
Hieracium murorum	24.0	Fagus sylvatica	22.0
Dactylis glomerata	22.0	Fragaria vesca	21.0
Rubus fruticosus aggr.	20.0	Veronica officinalis	19.0
Juniperus oxycedrus	19.0	Brachypodium sylvaticum	18.0
Cruciata glabra	17.0	Calluna vulgaris	17.0
Galium rotundifolium	16.0	Cytisus scoparius	16.0
Rubus idaeus	15.0	Vaccinium myrtillus	14.0
Rosa canina aggr.	14.0	Pilosella officinarum	14.0
Juniperus communis subsp. nana	14.0	Dicranum scoparium	14.0

Sorbus aria aggr.	13.0	Brachypodium pinnatum	13.0
Veronica chamaedrys	12.0	Teucrium scorodonia	12.0
Teucrium chamaedrys	12.0	Pseudoscleropodium purum	12.0
Crataegus monogyna	12.0	Sorbus aucuparia	11.0
Clinopodium vulgare	11.0	Buxus sempervirens	11.0
Amelanchier ovalis	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Pinus nigra	57.0	Pinus sylvestris	42.0
Avenella flexuosa	13.0	Pteridium aquilinum	7.0
Cytisus balansae	7.0	Buxus sempervirens	5.0

T38 - [G36] Mediterranean and Balkan subalpine Pinus heldreichii-Pinus peuce forest

*Diagnostic species (phi coefficient * 100)*

Pinus heldreichii	78.5	Pinus peuce	64.2
Daphne oleoides	40.1	Sesleria robusta	39.5
Hieracium pannosum	36.3	Juniperus communis subsp. nana	35.8
Minuartia baldaccii	35.1	Crocus veluchensis	35.1
Moehringia pendula	32.5	Campanula sparsa	29.4
Daphne blagayana	29.2	Geranium macrorrhizum	28.4
Aremonia agrimonoides	27.9	Asperula aristata	27.6
Wulfenia carinthiaca	27.1	Luzula luzulina	26.8
Bornmuellera tymphaea	26.8	Cyanus pindicola	26.3
Euphorbia amygdaloides	26.1	Pilosella cymosa	25.8
Campanula trichocalycina	25.6	Polygala nicaeensis aggr.	22.3
Verbascum nicolai	22.2	Dianthus integer	21.8
Achillea holosericea	21.4	Scabiosa taygetea	21.1
Cerastium moesiacum	20.2	Anthyllis aurea	20.1
Clinopodium alpinum	20.0	Silene multicaulis	19.8
Scabiosa cinerea	19.4	Veratrum album	19.3
Poa thessala	18.1	Calamagrostis arundinacea	17.7
Poa media	17.6	Cotoneaster integerrimus	17.6
Bromopsis cappadocica	17.4	Senecio squalidus subsp. rupestris	17.2
Pseudevernia furfuracea	17.2	Iberis sempervirens	17.1
Cytisus eriocarpus	16.8	Potentilla micrantha	16.6
Dianthus petraeus	16.4	Genista carinalis	15.9
Daphne mezereum	15.8	Thesium auriculatum	15.7
Stipa rechingeri	15.7	Primula kitaibeliana	15.7
Minuartia attica subsp. attica	15.7	Galium procurrens	15.7
Ferulago sylvatica	15.7	Centaurea lacerata	15.7
Bromopsis pindica	15.7	Arenaria gracilis	15.7
Stachys scardica	15.6	Rhynchocorys elephas	15.6
Pedicularis friderici-augusti	15.6	Luzula sylvatica	15.6
Genista sakellariadis	15.6	Buxus sempervirens	15.6
Helictochloa aetolica	15.6	Arabis bryoides	15.6
Gentianella crispata	15.5	Carum appuanum	15.5

Aurinia corymbosa	15.5	Amphoricarpos neumayerianus	15.5
Senecio thapsoides	15.4	Oxytropis urumovii	15.3
Odontarrhena heldreichii	15.3	Galium rotundifolium	15.3
Viola bertolonii	15.2	Sesleria juncifolia	15.2
Edraianthus tenuifolius	15.2	Alyssum scardicum	15.2
Trinia frigida	15.1	Poa pumila	15.1
Marrubium thessalum	15.1		
<i>Constant species (occurrence frequencies)</i>			
Pinus heldreichii	62.0	Euphorbia amygdaloides	50.0
Vaccinium myrtillus	48.0	Pinus peuce	42.0
Juniperus communis subsp. nana	38.0	Fragaria vesca	35.0
Fagus sylvatica	32.0	Picea abies	30.0
Calamagrostis arundinacea	30.0	Abies alba	28.0
Luzula sylvatica	25.0	Aremonia agrimonoides	25.0
Oxalis acetosella	22.0	Luzula luzuloides	22.0
Daphne oleoides	22.0	Daphne mezereum	22.0
Veronica chamaedrys	20.0	Veratrum album	20.0
Rubus idaeus	20.0	Lactuca muralis	20.0
Hieracium murorum	20.0	Dryopteris filix-mas	20.0
Buxus sempervirens	20.0	Thymus praecox	18.0
Sesleria robusta	18.0	Luzula luzulina	18.0
Homogyne alpina	18.0	Brachypodium pinnatum	18.0
Avenella flexuosa	18.0	Asperula aristata	18.0
Anemone nemorosa	18.0	Veronica officinalis	15.0
Lotus corniculatus	15.0	Juniperus communis subsp. communis	15.0
Hieracium pannosum	15.0	Helianthemum nummularium	15.0
Galium rotundifolium	15.0	Festuca heterophylla	15.0
Crocus veluchensis	15.0	Clinopodium alpinum	15.0
Viola reichenbachiana	12.0	Trifolium alpestre	12.0
Teucrium montanum	12.0	Primula veris	12.0
Potentilla micrantha	12.0	Poa nemoralis	12.0
Pilosella cymosa	12.0	Moehringia pendula	12.0
Minuartia baldaccii	12.0	Geranium sylvaticum aggr.	12.0
Geranium macrorrhizum	12.0	Gentiana asclepiadea	12.0
Campanula sparsa	12.0	Ajuga reptans	12.0
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Pinus heldreichii	62.0	Pinus peuce	38.0
Vaccinium myrtillus	22.0	Juniperus communis subsp. nana	10.0
Buxus sempervirens	10.0	Crocus veluchensis	8.0
Thymus praecox	5.0	Poa media	5.0
Picea abies	5.0	Festuca varia	5.0
Erica carnea	5.0	Calamagrostis arundinacea	5.0

T39 - [G37] Mediterranean lowland to submontane Pinus forest

*Diagnostic species (phi coefficient * 100)*

Pinus halepensis	51.6	Pinus brutia	36.1
Quercus coccifera	31.3	Rosmarinus officinalis	30.8
Juniperus oxycedrus	30.5	Brachypodium retusum	29.9
Pistacia lentiscus	28.6	Cistus salviifolius	28.3
Phillyrea angustifolia	26.2	Cistus creticus	24.3
Smilax aspera	24.1	Pinus pinaster	23.9
Quercus ilex	23.8	Asparagus acutifolius	23.6
Staehelina dubia	22.6	Arbutus unedo	22.2
Pinus pinea	22.0	Lonicera implexa	22.0
Phillyrea latifolia	21.8	Rubia peregrina	21.7
Thymus vulgaris	21.4	Cistus albidus	21.0
Olea europaea	19.7	Myrtus communis	19.1
Styrax officinalis	18.2	Daphne gnidium	17.7
Aphyllanthes monspeliensis	17.6	Rhamnus alaternus	17.1
Clematis flammula	17.0	Dorycnium pentaphyllum	16.7
Rhaponticum coniferum	16.4	Erica multiflora	16.4
Lavandula stoechas	16.3	Helichrysum stoechas	16.2
Juniperus phoenicea	15.9	Erica manipuliflora	15.7
Cistus monspeliensis	15.7	Erica arborea	15.6
Arbutus andrachne	15.3		

Constant species (occurrence frequencies)

Pinus halepensis	55.0	Rubia peregrina	43.0
Brachypodium retusum	39.0	Juniperus oxycedrus	37.0
Quercus ilex	35.0	Pistacia lentiscus	34.0
Quercus coccifera	32.0	Asparagus acutifolius	32.0
Smilax aspera	31.0	Rosmarinus officinalis	29.0
Cistus salviifolius	29.0	Thymus vulgaris	25.0
Pinus pinaster	25.0	Dactylis glomerata	25.0
Phillyrea latifolia	24.0	Phillyrea angustifolia	24.0
Arbutus unedo	24.0	Quercus pubescens	22.0
Dorycnium pentaphyllum	21.0	Lonicera implexa	20.0
Erica arborea	18.0	Rhamnus alaternus	17.0
Pinus brutia	17.0	Cistus creticus	17.0
Olea europaea	16.0	Aphyllanthes monspeliensis	16.0
Teucrium polium aggr.	15.0	Teucrium chamaedrys	15.0
Staehelina dubia	15.0	Daphne gnidium	15.0
Clematis flammula	15.0	Carex halleriana	15.0
Rubus ulmifolius	14.0	Myrtus communis	14.0
Cistus albidus	14.0	Helichrysum stoechas	13.0
Hedera helix	13.0	Juniperus phoenicea	12.0
Cistus monspeliensis	12.0	Viburnum tinus	11.0
Sanguisorba minor	11.0	Ruscus aculeatus	11.0
Pistacia terebinthus	11.0	Crataegus monogyna	11.0
Calluna vulgaris	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Pinus halepensis	51.0	Pinus pinaster	22.0
Pinus brutia	16.0	Brachypodium retusum	10.0
Pinus pinea	9.0	Rosmarinus officinalis	8.0
Pistacia lentiscus	6.0	Erica arborea	6.0

T3A - [G38] Pinus canariensis forest

*Diagnostic species (phi coefficient * 100)*

Pinus canariensis	99.4	Cytisus proliferus	74.4
Cistus symphytifolius	69.0	Adenocarpus viscosus	53.8
Asphodelus ramosus	46.5	Bystropogon origanifolius	46.0
Morella faya	44.2	Argyranthemum adauctum	43.2
Pteroccephalus lasiospermus	42.6	Micromeria benthamii	39.7
Andryala pinnatifida	38.8	Davallia canariensis	38.3
Cistus monspeliensis	37.0	Cytisus supranubius	35.7
Ilex canariensis	34.8	Tolpis webbii	32.1
Erysimum scoparium	31.9	Hypericum canariense	31.6
Kleinia neriifolia	28.8	Erica arborea	28.0
Carlina xeranthemoides	28.0	Arbutus canariensis	27.7
Adenocarpus foliolosus	27.7	Hypericum xylosteifolium	27.6
Polypodium cambricum subsp. macaronesicum	27.4	Sonchus acaulis	27.3
Scrophularia glabrata	27.3	Euphorbia lamarckii	27.3
Micromeria hyssopifolia	26.2	Euphorbia regis-jubae	23.9
Micromeria pineolens	23.1	Genista stenopetala	23.1
Dichranthus plocamoides	23.1	Sonchus platylepis	23.1
Descurainia preauxiana	23.0	Allosorus fragilis	23.0
Lotus campylocladus	22.9	Descurainia gonzalesii	22.9
Lavandula minutolii	22.8	Paronychia canariensis	22.7
Hypericum reflexum	22.7	Descurainia bourgaeana	22.7
Bystropogon canariensis	22.7	Nepeta teydea	22.6
Aichryson laxum	22.6	Genista microphylla	22.4
Visnea mocanera	22.2	Ferula linkii	22.1
Sonchus pinnatus	21.9	Galium scabrum	21.6
Ranunculus cortusifolius	21.4	Carlina salicifolia	21.4
Lavandula canariensis	21.2	Micromeria varia	20.7
Opuntia ficus-indica	19.6	Adenocarpus complicatus	17.5
Pleiomeris canariensis	16.4	Lotus pyranthus	16.4
Lotus holosericus	16.4	Echium webbii	16.4
Aeonium rubrolineatum	16.4	Sonchus canariensis	16.3
Sideritis soluta	16.3	Micromeria lepida	16.3
Micromeria lanata	16.3	Aeonium spathulatum	16.3
Tolpis proustii	16.2	Sideritis roteneriffae	16.2
Rostraria pumila	16.2	Festuca agustinii	16.2
Echium onosmifolium	16.2	Cytisus filipes	16.2
Cistus osbeckiiifolius	16.2	Cistus chinamadensis	16.2
Argyranthemum callichrysum	16.2	Aeonium aureum	16.2

Todaroa aurea	16.1	Aeonium ciliatum	16.1
Aeonium castello-paivae	16.0	Brachypodium arbuscula	15.9
Micromeria lachnophylla	15.8	Aeonium lindleyi	15.8
Micromeria herpyllomorpha	15.7	Phagnalon purpurascens	15.7
Echium aculeatum	15.6	Cedronella canariensis	15.6
Rumex maderensis	15.5	Kickxia scoparia	15.4
Echium virescens	15.4	Arrhenatherum calderae	15.4
Pericallis tussilaginis	15.3	Euphorbia berthelotii	15.3
Apollonias barbujana	15.3	Daphne gnidium	15.1
Agave americana	15.0		
<i>Constant species (occurrence frequencies)</i>			
Pinus canariensis	100.0	Cytisus proliferus	57.0
Cistus symphytifolius	49.0	Asphodelus ramosus	43.0
Erica arborea	35.0	Cistus monspeliensis	32.0
Adenocarpus viscosus	30.0	Morella faya	22.0
Bystropogon organifolius	22.0	Pterocephalus lasiospermus	19.0
Argyranthemum adauctum	19.0	Pteridium aquilinum	16.0
Micromeria benthamii	16.0	Davallia canariensis	16.0
Andryala pinnatifida	16.0	Ilex canariensis	14.0
Daphne gnidium	14.0	Cytisus supranubius	14.0
Tolpis webbii	11.0	Rubus ulmifolius	11.0
Kleinia neriifolia	11.0	Hypericum canariense	11.0
Erysimum scoparium	11.0	Brachypodium sylvaticum	11.0
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Pinus canariensis	92.0	Cistus symphytifolius	24.0
Cytisus proliferus	22.0	Erica arborea	16.0
Cistus monspeliensis	11.0	Lotus campylocladus	5.0
Adenocarpus foliolosus	5.0		

T3B - [G34d] Mediterranean montane Cedrus forest

<i>Diagnostic species (phi coefficient * 100)</i>			
Cedrus libani	99.7	Asyneuma rigidum	75.1
Asperula cimulosa	74.8	Viola sieheana	72.8
Lathyrus hirsutus	72.0	Trifolium pannonicum	71.4
Berberis crataegina	64.7	Cyclamen coum	64.6
Helleborus orientalis	64.5	Trifolium physodes	62.6
Vicia tenuifolia	62.5	Lathyrus nissolia	61.7
Pinus nigra	56.8	Veronica pectinata	53.1
Teucrium kotschyannum	53.0	Lactuca hispida	53.0
Quercus alnifolia	52.7	Securigera cretica	52.6
Polygala anatolica	52.6	Ajuga orientalis	52.6
Polygala supina	52.2	Salvia tomentosa	51.5
Potentilla micrantha	46.4	Pinus brutia	45.1
Juniperus oxycedrus	42.8	Dorycnium pentaphyllum	41.8

Securigera varia	40.8	Syrmatium decumbens	37.5
Erysimum pycnophyllum	37.4	Asyneuma amplexicaule	37.4
Euphorbia kotschyana	37.1	Achillea grandifolia	36.7
Arabis laxa	36.6	Lecokia cretica	36.5
Pilosella auriculoides	36.2	Cotoneaster nummularius	36.0
Cistus creticus	34.8	Cephalanthera damasonium	34.7
Acer sempervirens	34.0	Arbutus andrachne	31.5
Prunus cerasifera	31.4	Crucianella latifolia	31.0
Crepis fraasii	30.9	Doronicum orientale	29.3
Brachypodium pinnatum	26.4	Trisetum flavescens	26.0
Sorbus torminalis	26.0	Filipendula vulgaris	21.5
Potentilla recta	21.4	Quercus petraea	19.5
Silene italica	19.2	Cynosurus echinatus	18.5
Galium verum	17.6	Clinopodium vulgare	17.3
<i>Constant species (occurrence frequencies)</i>			
Cedrus libani	100.0	Pinus nigra	71.0
Viola sieheana	57.0	Vicia tenuifolia	57.0
Trifolium pannonicum	57.0	Securigera varia	57.0
Quercus petraea	57.0	Lathyrus hirsutus	57.0
Juniperus oxycedrus	57.0	Dorycnium pentaphyllum	57.0
Dactylis glomerata	57.0	Brachypodium pinnatum	57.0
Asyneuma rigidum	57.0	Asperula cimulosa	57.0
Trisetum flavescens	43.0	Trifolium physodes	43.0
Sorbus torminalis	43.0	Potentilla micrantha	43.0
Pinus sylvestris	43.0	Lathyrus nissolia	43.0
Helleborus orientalis	43.0	Galium verum	43.0
Cyclamen coum	43.0	Berberis crataegina	43.0
Vicia cracca	29.0	Veronica pectinata	29.0
Veronica chamaedrys	29.0	Teucrium kotschyianum	29.0
Securigera cretica	29.0	Salvia tomentosa	29.0
Quercus alnifolia	29.0	Polygala supina	29.0
Polygala anatolica	29.0	Poa nemoralis	29.0
Pinus brutia	29.0	Lactuca hispida	29.0
Filipendula vulgaris	29.0	Clinopodium vulgare	29.0
Cistus creticus	29.0	Cephalanthera damasonium	29.0
Arrhenatherum elatius	29.0	Ajuga orientalis	29.0
Trifolium medium	14.0	Teucrium chamaedrys	14.0
Syrmatium decumbens	14.0	Sorbus aria aggr.	14.0
Silene italica	14.0	Rubus fruticosus aggr.	14.0
Rosa canina aggr.	14.0	Pteridium aquilinum	14.0
Prunus cerasifera	14.0	Potentilla recta	14.0
Poa bulbosa	14.0	Neottia ovata	14.0
Luzula forsteri	14.0	Lecokia cretica	14.0
Pilosella auriculoides	14.0	Fraxinus ornus	14.0
Euphorbia kotschyana	14.0	Erysimum pycnophyllum	14.0
Doronicum orientale	14.0	Cynosurus echinatus	14.0
Crucianella latifolia	14.0	Crepis fraasii	14.0

Cotoneaster nummularius	14.0	Asyneuma amplexicaule	14.0
Arbutus andrachne	14.0	Arabis laxa	14.0
Achillea grandifolia	14.0	Acer sempervirens	14.0
<i>Dominant species (percentage frequencies of occurrences with cover > 25%)</i>			
Cedrus libani	100.0	Vicia tenuifolia	29.0
Brachypodium pinnatum	14.0		
T3C - [G39a] Taxus baccata forest			
<i>Diagnostic species (phi coefficient * 100)</i>			
Taxus baccata	85.6	Cyclamen repandum	34.0
Arenaria balearica	28.7	Glechoma sardoa	22.9
Cymbalaria aequitriloba	22.9	Stachys corsica	21.0
Asplenium adiantum-nigrum subsp. onopteris	20.1	Galium scabrum	19.8
Geranium lucidum	19.0	Acer monspessulanum	18.5
Hedera helix	18.2	Ilex aquifolium	17.6
Acer opalus aggr.	17.5	Daphne laureola	17.4
Rhamnus alpina	17.1	Quercus ilex	17.1
Quercus congesta	16.9	Hypochaeris robertia	16.6
Ribes multiflorum	16.3	Helleborus lividus	16.1
Geranium lanuginosum	16.1	Arenaria bertolonii	15.8
Euonymus latifolius	15.1		
<i>Constant species (occurrence frequencies)</i>			
Taxus baccata	100.0	Hedera helix	66.0
Ilex aquifolium	39.0	Viola reichenbachiana	34.0
Fagus sylvatica	34.0	Mercurialis perennis	31.0
Rubus fruticosus aggr.	27.0	Quercus ilex	26.0
Lactuca muralis	26.0	Sorbus aria aggr.	24.0
Cyclamen repandum	24.0	Fraxinus excelsior	23.0
Corylus avellana	23.0	Daphne laureola	20.0
Ruscus aculeatus	19.0	Dryopteris filix-mas	19.0
Dioscorea communis	19.0	Crataegus monogyna	19.0
Rubia peregrina	17.0	Brachypodium sylvaticum	17.0
Asplenium adiantum-nigrum subsp. onopteris	17.0	Acer opalus aggr.	17.0
Acer pseudoplatanus	16.0	Acer monspessulanum	16.0
Sambucus nigra	14.0	Melica uniflora	14.0
Hepatica nobilis	14.0	Fragaria vesca	14.0
Euphorbia amygdaloides	14.0	Clematis vitalba	14.0
Asplenium trichomanes	14.0	Viola alba	13.0
Sanicula europaea	13.0	Quercus petraea	13.0
Pteridium aquilinum	13.0	Ligustrum vulgare	13.0
Geranium robertianum	13.0	Eurhynchium striatum	13.0
Carpinus betulus	13.0	Arum maculatum	13.0

Solidago virgaurea	11.0	Phillyrea latifolia	11.0
Hieracium murorum	11.0	Acer platanoides	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Taxus baccata	100.0	Hedera helix	9.0
Fagus sylvatica	9.0	Ilex aquifolium	6.0

T3D - [G39b] Mediterranean Cupressaceae forest

*Diagnostic species (phi coefficient * 100)*

Cupressus sempervirens	61.6	Juniperus thurifera	49.4
Juniperus foetidissima	43.8	Hypericum empetrifolium	37.3
Crepis fraasii	34.8	Quercus coccifera	34.0
Achnatherum bromoides	33.6	Centaurea raphanina	33.1
Festuca jeanpertia	31.0	Drimys maritima	29.2
Pinus brutia	29.0	Juniperus excelsa	28.8
Scaligeria napiformis	27.8	Rhamnus lycioides	27.5
Juniperus oxycedrus	26.8	Galium monachinii	25.6
Daphne oleoides	25.6	Lamyropsis cynaroides	25.1
Asparagus aphyllus	25.1	Astracantha rumelica	24.3
Micromeria juliana	24.2	Acer sempervirens	22.7
Crucianella imbricata	22.1	Pterocephalus perennis	21.9
Asperula rigida	21.7	Teucrium microphyllum	21.5
Asperula pubescens	21.4	Salvia fruticosa	21.3
Ballota acetabulosa	21.2	Melica ciliata	20.9
Cerastium candidissimum	20.4	Luzula nodulosa	20.1
Arabis verna	20.1	Trifolium physodes	19.8
Leontodon tuberosus	19.7	Juniperus drupacea	19.7
Geranium purpureum	19.7	Salvia pomifera	19.5
Campanula spatulata	19.3	Rubia tenuifolia	19.2
Cerastium scaposum	19.2	Erysimum pusillum	19.0
Selaginella denticulata	18.9	Brachypodium retusum	18.8
Ornithogalum montanum	18.6	Centaurea idaea	18.6
Berberis cretica	18.6	Eryngium amethystinum	18.1
Cyclamen creticum	18.1	Sedum amplexicaule	18.0
Carlina graeca	17.6	Cistus creticus	17.5
Tolpis virgata	17.4	Homalothecium aureum	17.1
Silene sieberi	16.9	Leontodon graecus	16.9
Rosa pulverulenta	16.8	Myosotis refracta	16.7
Malcolmia graeca	16.6	Cirsium morinifolium	16.6
Orchis anatolica	16.4	Abies cephalonica	16.4
Phlomis fruticosa	16.1	Orchis quadripunctata	16.0
Phlomis lanata	15.9	Juniperus sabina	15.9
Astragalus depressus	15.9	Teucrium divaricatum	15.4
Taraxacum sect. Scariosa	15.4	Polygala venulosa	15.4
Phlomis cretica	15.3	Anemone blanda	15.3
Aethionema saxatile	15.3	Poa bulbosa	15.2

Constant species (occurrence frequencies)

Dactylis glomerata	42.0	Cupressus sempervirens	41.0
Quercus coccifera	38.0	Juniperus oxycedrus	34.0
Juniperus thurifera	27.0	Brachypodium retusum	25.0
Achnatherum bromoides	21.0	Poa bulbosa	20.0
Juniperus foetidissima	20.0	Hypericum empetrifolium	20.0
Melica ciliata	19.0	Drimia maritima	19.0
Teucrium chamaedrys	17.0	Rhamnus lycioides	17.0
Crepis fraasii	17.0	Teucrium polium aggr.	15.0
Pinus brutia	15.0	Geranium purpureum	15.0
Centaurea raphanina	15.0	Asparagus aphyllus	14.0
Juniperus communis subsp. nana	13.0	Cistus creticus	13.0
Scaligeria napiformis	12.0	Festuca jeanpertii	12.0
Daphne oleoides	12.0	Asparagus acutifolius	12.0
Quercus pubescens	11.0	Pistacia lentiscus	11.0
Pinus nigra	11.0	Olea europaea	11.0
Genista scorpius	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Cupressus sempervirens	39.0	Juniperus thurifera	24.0
Juniperus foetidissima	18.0	Juniperus excelsa	9.0
Juniperus phoenicea	6.0	Juniperus communis subsp. nana	6.0
Juniperus sabina	5.0	Juniperus oxycedrus	5.0

T3E - [G39c] Macaronesian Juniperus forest

*Diagnostic species (phi coefficient * 100)*

Juniperus cedrus	99.9	Adenocarpus viscosus	65.9
Cytisus supranubius	56.9	Euphorbia regis-jubae	54.9
Micromeria lachnophylla	46.8	Cheirolophus teydis	46.8
Asparagus umbellatus	46.3	Pterocephalus lasiospermus	46.2
Scilla haemorrhoidalis	46.0	Micromeria varia	45.6
Pinus canariensis	44.6	Periploca angustifolia	44.4
Kleinia neriifolia	43.9	Piptatherum coerulescens	40.2
Hyparrhenia hirta	34.3	Aeonium pseudourbicum	33.2
Sideritis dendrochahorra	33.1	Seseli webbii	33.1
Polystichum falcinellum	33.1	Plantago webbii	33.1
Parietaria mauritanica	33.1	Festuca jubata	33.1
Cistus osbeckiifolius	33.1	Armeria maderensis	33.1
Pimpinella cumbrae	33.0	Justicia hyssopifolia	33.0
Genista tenera	33.0	Allosorus fragilis	33.0
Sideritis candicans	32.9	Lotus campylocladus	32.9
Argyranthemum tenerifae	32.9	Argyranthemum gracile	32.9
Aeonium lindleyi	32.9	Aeonium canariense	32.9
Paronychia canariensis	32.8	Allagopappus canariensis	32.8
Convolvulus floridus	32.7	Asparagus arborescens	32.7

Arrhenatherum calderae	32.7	Ilex perado	32.6
Helichrysum melaleucum	32.6	Tolpis webbii	32.4
Jasminum odoratissimum	32.4	Ferula linkii	32.4
Bystropogon organifolius	32.4	Scrophularia glabrata	32.2
Erysimum scoparium	32.2	Cosentinia vellea	32.2
Plantago arborescens	32.0	Limonium pectinatum	31.9
Carlina salicifolia	31.9	Lavandula canariensis	31.7
Aristida adscensionis	31.4	Argyranthemum frutescens	31.4
Prunus dulcis	31.0	Paragymnopteris marantae	31.0
Davallia canariensis	30.9	Cytisus proliferus	30.6
Opuntia ficus-indica	30.4	Rubia fruticosa	29.8
Asphodelus ramosus	27.2	Suaeda vera	24.6
Drimia maritima	18.7	Erica arborea	18.2
Agrostis castellana	17.6	Dittrichia viscosa	15.9
<i>Constant species (occurrence frequencies)</i>			
Juniperus cedrus	100.0	Adenocarpus viscosus	44.0
Euphorbia regis-jubae	33.0	Cytisus supranubius	33.0
Scilla haemorrhoidalis	22.0	Pterocephalus lasiospermus	22.0
Piptatherum coerulescens	22.0	Pinus canariensis	22.0
Periploca angustifolia	22.0	Micromeria varia	22.0
Micromeria lachnophylla	22.0	Kleinia neriifolia	22.0
Cheirolophus teydis	22.0	Hyparrhenia hirta	22.0
Erica arborea	22.0	Asphodelus ramosus	22.0
Asparagus umbellatus	22.0	Tolpis webbii	11.0
Suaeda vera	11.0	Sideritis dendrochahorra	11.0
Sideritis candicans	11.0	Seseli webbii	11.0
Scrophularia glabrata	11.0	Rubia fruticosa	11.0
Prunus dulcis	11.0	Polystichum falcinellum	11.0
Plantago webbii	11.0	Plantago arborescens	11.0
Pimpinella cumbrae	11.0	Paronychia canariensis	11.0
Parietaria mauritanica	11.0	Paragymnopteris marantae	11.0
Opuntia ficus-indica	11.0	Lotus campylocladus	11.0
Limonium pectinatum	11.0	Lavandula canariensis	11.0
Justicia hyssopifolia	11.0	Jasminum odoratissimum	11.0
Ilex perado	11.0	Helichrysum melaleucum	11.0
Genista tenera	11.0	Festuca jubata	11.0
Ferula linkii	11.0	Erysimum scoparium	11.0
Drimia maritima	11.0	Dittrichia viscosa	11.0
Davallia canariensis	11.0	Cytisus proliferus	11.0
Cosentinia vellea	11.0	Convolvulus floridus	11.0
Cistus osbeckiiifolius	11.0	Carlina salicifolia	11.0
Bystropogon organifolius	11.0	Bituminaria bituminosa	11.0
Asparagus arborescens	11.0	Arrhenatherum calderae	11.0
Armeria maderensis	11.0	Aristida adscensionis	11.0
Argyranthemum tenerifae	11.0	Argyranthemum gracile	11.0
Argyranthemum frutescens	11.0	Allosorus fragilis	11.0
Allagopappus canariensis	11.0	Agrostis castellana	11.0

Aeonium pseudourbicum	11.0	Aeonium lindleyi	11.0
Aeonium canariense	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Juniperus cedrus	100.0	Micromeria lachnophylla	22.0
Plantago webbii	11.0	Hyparrhenia hirta	11.0
Erica arborea	11.0	Cytisus supranubius	11.0
Cistus osbeckiifolius	11.0	Adenocarpus viscosus	11.0

T3F - [G3A] Dark taiga

*Diagnostic species (phi coefficient * 100)*

Hylocomium splendens	34.1	Trientalis europaea	32.3
Linnaea borealis	31.4	Pleurozium schreberi	30.4
Ptilium crista-castrensis	29.6	Picea abies	29.0
Vaccinium vitis-idaea	27.3	Luzula pilosa	26.2
Betula pubescens	24.9	Vaccinium myrtillus	24.2
Sorbus aucuparia	24.0	Maianthemum bifolium	23.9
Avenella flexuosa	20.2	Gymnocarpium dryopteris	19.4
Melampyrum pratense	19.3	Lycopodium annotinum	17.8
Equisetum sylvaticum	17.4	Polytrichum commune	16.6
Rubus saxatilis	16.3	Melampyrum sylvaticum	16.0

Constant species (occurrence frequencies)

Picea abies	98.0	Pleurozium schreberi	89.0
Hylocomium splendens	88.0	Vaccinium myrtillus	87.0
Sorbus aucuparia	80.0	Vaccinium vitis-idaea	73.0
Avenella flexuosa	71.0	Betula pubescens	66.0
Luzula pilosa	56.0	Trientalis europaea	54.0
Pinus sylvestris	53.0	Maianthemum bifolium	51.0
Melampyrum pratense	41.0	Oxalis acetosella	35.0
Linnaea borealis	35.0	Ptilium crista-castrensis	34.0
Solidago virgaurea	32.0	Polytrichum commune	32.0
Rubus idaeus	29.0	Gymnocarpium dryopteris	26.0
Equisetum sylvaticum	24.0	Betula pendula	24.0
Juniperus communis subsp. communis	23.0	Calamagrostis arundinacea	23.0
Rubus saxatilis	21.0	Populus tremula	20.0
Lycopodium annotinum	19.0	Melampyrum sylvaticum	18.0
Orthilia secunda	16.0	Frangula alnus	16.0
Epilobium angustifolium	16.0	Empetrum nigrum aggr.	16.0
Deschampsia cespitosa	16.0	Calluna vulgaris	16.0
Pteridium aquilinum	15.0	Anemone nemorosa	14.0
Rhytidiadelphus triquetrus	13.0	Potentilla erecta	13.0
Geranium sylvaticum aggr.	13.0	Carex digitata	13.0
Dryopteris carthusiana	12.0	Dicranum scoparium	12.0
Dicranum polysetum	11.0	Corylus avellana	11.0
Carex globularis	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Picea abies	98.0	Hylocomium splendens	16.0
Pleurozium schreberi	15.0	Vaccinium myrtillus	9.0

T3G - [G3B] Pinus sylvestris light taiga

*Diagnostic species (phi coefficient * 100)*

Vaccinium vitis-idaea	34.3	Pleurozium schreberi	32.5
Pinus sylvestris	31.6	Hylocomium splendens	29.0
Vaccinium myrtillus	25.0	Ptilium crista-castrensis	23.8
Picea abies	23.4	Betula pubescens	23.0
Empetrum nigrum aggr.	22.4	Melampyrum pratense	21.7
Cladonia stellaris	20.8	Linnaea borealis	20.3
Luzula pilosa	17.9	Trientalis europaea	17.5
Juniperus communis subsp. communis	17.5	Avenella flexuosa	17.1
Calluna vulgaris	16.6	Sorbus aucuparia	15.2

Constant species (occurrence frequencies)

Pinus sylvestris	100.0	Pleurozium schreberi	93.0
Vaccinium vitis-idaea	89.0	Vaccinium myrtillus	89.0
Picea abies	81.0	Hylocomium splendens	75.0
Avenella flexuosa	62.0	Betula pubescens	61.0
Sorbus aucuparia	54.0	Calluna vulgaris	54.0
Melampyrum pratense	45.0	Empetrum nigrum aggr.	41.0
Juniperus communis subsp. communis	40.0	Luzula pilosa	39.0
Trientalis europaea	30.0	Betula pendula	29.0
Vaccinium uliginosum	27.0	Ptilium crista-castrensis	27.0
Polytrichum commune	25.0	Linnaea borealis	23.0
Maianthemum bifolium	21.0	Solidago virgaurea	20.0
Populus tremula	19.0	Epilobium angustifolium	18.0
Rubus idaeus	15.0	Dicranum polysetum	15.0
Calamagrostis arundinacea	15.0	Frangula alnus	14.0
Cladonia stellaris	13.0	Aulacomnium palustre	13.0
Rhododendron tomentosum	12.0	Pteridium aquilinum	12.0
Eriophorum vaginatum	11.0	Carex globularis	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Pinus sylvestris	88.0	Pleurozium schreberi	28.0
Hylocomium splendens	10.0	Vaccinium myrtillus	9.0

T3H - [G3C] Larix light taiga

*Diagnostic species (phi coefficient * 100)*

Larix sibirica	98.8	Rosa acicularis	68.8
Clematis alpina	67.9	Rubus arcticus	61.0

Saussurea alpina aggr.	58.8	Cirsium heterophyllum aggr.	57.3
Carex vaginata	50.6	Linnaea borealis	47.2
Aconitum lycoctonum	47.1	Epilobium angustifolium	46.4
Lathyrus vernus	46.0	Crepis sibirica	45.7
Vicia sylvatica	42.2	Geranium sylvaticum aggr.	42.2
Moehringia lateriflora	41.6	Rubus saxatilis	40.4
Rhodobryum roseum	40.3	Conioselinum tataricum	39.7
Equisetum pratense	38.4	Galium boreale	37.9
Lonicera caerulea	37.6	Dicranum majus	35.1
Melica nutans	34.5	Lycopodium annotinum	34.1
Viola mirabilis	33.9	Pyrola rotundifolia	33.8
Paeonia anomala	33.2	Usnea hirta	33.1
Hieracium pseudirectum	33.0	Trientalis europaea	31.9
Hypogymnia tubulosa	31.1	Evernia mesomorpha	30.9
Thalictrum minus	30.8	Delphinium elatum	30.6
Vulpicidia pinastri	30.2	Pseudevernia furfuracea	30.1
Betula pubescens	29.9	Parmelia sulcata	29.6
Aconogonon alpinum	28.2	Ptilidium pulcherrimum	27.5
Vaccinium vitis-idaea	27.1	Orthodicranum montanum	27.1
Trollius europaeus	26.9	Thalictrum simplex	26.9
Brachythecium reflexum	26.5	Luzula pilosa	25.7
Hylocomium splendens	25.3	Orthilia secunda	24.7
Silene repens	24.1	Chaenotheca chrysocephala	24.1
Calicium viride	24.1	Cladonia bacilliformis	24.0
Solidago virgaurea	23.8	Buellia disciformis	23.8
Usnea glabrata	23.7	Physcia aipolia	23.7
Melanelia subaurifera	23.7	Hypocenomyce scalaris	23.5
Dicranum fragilifolium	23.5	Pylaisiella polyantha	23.3
Melanelia exasperatula	23.2	Seseli krylovii	23.1
Melanelia olivacea	23.0	Lecanora symmicta	23.0
Lactuca macrophylla	23.0	Lathyrus gmelinii	22.9
Valeriana wolgensis	22.8	Lecanora allophana	22.7
Calamagrostis obtusata	22.6	Sciuro-hypnum starkii	22.4
Juniperus communis subsp. communis	22.4	Stellaria bungeana	22.3
Buellia punctata	22.3	Parmeliopsis ambigua	21.5
Eurhynchiastrum pulchellum	21.4	Cirriphyllum piliferum	21.4
Sanionia uncinata	21.3	Parasenecio hastatus	21.3
Geranium pseudosibiricum	21.0	Plagiothecium laetum	20.7
Adenophora liliifolia	20.7	Pleurozium schreberi	20.5
Pinus sibirica	20.5	Gymnocarpium dryopteris	20.5
Hypnum pallescens	20.3	Hypogymnia physodes	20.2
Brachythecium salebrosum	20.0	Vicia sepium	19.8
Lathyrus pisiformis	19.5	Cladonia cenotea	19.5
Brachythecium oedipodium	19.5	Cladonia digitata	19.1
Pyrola media	18.9	Bupleurum longifolium	18.7
Veratrum lobelianum	18.4	Dicranum fuscescens	18.3
Maianthemum bifolium	18.0	Elymus caninus	18.0
Crepis praemorsa aggr.	17.7	Rosa majalis	16.9

Pulsatilla patens	16.8	Vaccinium myrtillus	16.6
Daphne mezereum	16.5	Picea obovata	16.1
Milium effusum	16.0	Abies sibirica	15.9
Rhytiadelphus triquetrus	15.8	Mnium spinosum	15.2
Angelica sylvestris	15.2	Oxalis acetosella	15.1
Hieracium umbellatum	15.1	Dicranum polysetum	15.0
<i>Constant species (occurrence frequencies)</i>			
Larix sibirica	100.0	Epilobium angustifolium	82.0
Betula pubescens	82.0	Vaccinium vitis-idaea	76.0
Lathyrus vernus	71.0	Hylocomium splendens	71.0
Vaccinium myrtillus	65.0	Pleurozium schreberi	65.0
Linnaea borealis	65.0	Geranium sylvaticum aggr.	65.0
Clematis alpina	65.0	Trientalis europaea	59.0
Solidago virgaurea	59.0	Rubus saxatilis	59.0
Melica nutans	59.0	Luzula pilosa	59.0
Rosa acicularis	53.0	Juniperus communis subsp. communis	53.0
Cirsium heterophyllum aggr.	53.0	Avenella flexuosa	53.0
Saussurea alpina aggr.	47.0	Rubus arcticus	47.0
Oxalis acetosella	47.0	Galium boreale	47.0
Aconitum lycoctonum	47.0	Maianthemum bifolium	41.0
Lycopodium annotinum	41.0	Vicia sepium	35.0
Sorbus aucuparia	35.0	Pinus sylvestris	35.0
Equisetum pratense	35.0	Carex vaginata	35.0
Angelica sylvestris	35.0	Viola mirabilis	29.0
Vicia sylvatica	29.0	Trollius europaeus	29.0
Thalictrum minus	29.0	Rhytiadelphus triquetrus	29.0
Rhodobryum roseum	29.0	Populus tremula	29.0
Polytrichum commune	29.0	Orthilia secunda	29.0
Milium effusum	29.0	Melampyrum pratense	29.0
Gymnocarpium dryopteris	29.0	Dicranum scoparium	29.0
Dicranum majus	29.0	Pyrola rotundifolia	24.0
Poa nemoralis	24.0	Paris quadrifolia	24.0
Lonicera caerulea	24.0	Lathyrus pratensis	24.0
Fragaria vesca	24.0	Filipendula ulmaria	24.0
Daphne mezereum	24.0	Crepis sibirica	24.0
Calamagrostis arundinacea	24.0	Salix caprea	18.0
Rubus idaeus	18.0	Ptilium crista-castrensis	18.0
Picea abies	18.0	Moehringia trinervia	18.0
Moehringia lateriflora	18.0	Hieracium umbellatum	18.0
Equisetum sylvaticum	18.0	Elymus caninus	18.0
Dryopteris filix-mas	18.0	Dicranum polysetum	18.0
Conioselinum tataricum	18.0	Cirriphyllum piliferum	18.0
Carex digitata	18.0	Anthriscus sylvestris	18.0
Vulpicidia pinastri	12.0	Veratrum lobelianum	12.0
Vaccinium uliginosum	12.0	Usnea hirta	12.0
Thalictrum simplex	12.0	Stellaria nemorum	12.0
Stellaria holostea	12.0	Stachys sylvatica	12.0

Sanionia uncinata	12.0	Ribes rubrum aggr.	12.0
Ptilidium pulcherrimum	12.0	Pseudevernia furfuracea	12.0
Plagiothecium laetum	12.0	Peucedanum palustre	12.0
Parmelia sulcata	12.0	Paeonia anomala	12.0
Orthodicranum montanum	12.0	Melampyrum sylvaticum	12.0
Hypogymnia tubulosa	12.0	Hypogymnia physodes	12.0
Hieracium pseudirectum	12.0	Festuca ovina	12.0
Evernia mesomorpha	12.0	Dryopteris carthusiana	12.0
Dicranum fuscescens	12.0	Delphinium elatum	12.0
Dactylis glomerata	12.0	Climacium dendroides	12.0
Campanula glomerata	12.0	Brachythecium salebrosum	12.0
Brachythecium reflexum	12.0	Brachythecium oedipodium	12.0
Brachypodium pinnatum	12.0	Aegopodium podagraria	12.0
Adoxa moschatellina	12.0	Aconogonon alpinum	12.0
Acer platanoides	12.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Larix sibirica	100.0	Hylocomium splendens	41.0
Pleurozium schreberi	29.0	Vaccinium vitis-idaea	18.0
Juniperus communis subsp. communis	18.0	Rhytidiadelphus triquetrus	12.0
Picea abies	12.0	Maianthemum bifolium	12.0
Vaccinium myrtillus	6.0	Ulmus glabra	6.0
Polytrichum commune	6.0	Picea obovata	6.0
Oxalis acetosella	6.0	Mercurialis perennis	6.0
Luzula pilosa	6.0	Gymnocarpium dryopteris	6.0
Calamagrostis arundinacea	6.0	Betula pubescens	6.0
Avenella flexuosa	6.0	Anemone ranunculoides	6.0

T3J - [G3Da] Pinus and Larix mire forest

*Diagnostic species (phi coefficient * 100)*

Rhododendron tomentosum	42.8	Eriophorum vaginatum	39.1
Vaccinium uliginosum	38.7	Andromeda polifolia	34.3
Rubus chamaemorus	31.3	Sphagnum magellanicum	29.8
Sphagnum angustifolium	29.8	Vaccinium oxycoccos	28.5
Sphagnum fuscum	28.4	Polytrichum strictum	28.0
Empetrum nigrum aggr.	27.9	Pinus sylvestris	27.0
Betula nana	26.9	Vaccinium microcarpum	23.9
Carex globularis	23.8	Pleurozium schreberi	23.3
Vaccinium vitis-idaea	22.9	Aulacomnium palustre	21.1
Chamaedaphne calyculata	20.8	Betula pubescens	20.2
Sphagnum capillifolium	18.2	Cladonia rangiferina	18.1
Vaccinium myrtillus	17.5	Sphagnum russowii	16.7
Calluna vulgaris	16.7	Polytrichum commune	15.3

Constant species (occurrence frequencies)

Pinus sylvestris	89.0	Pleurozium schreberi	71.0
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Vaccinium uliginosum	70.0	Eriophorum vaginatum	69.0
Vaccinium myrtillus	66.0	Vaccinium vitis-idaea	63.0
Calluna vulgaris	55.0	Betula pubescens	55.0
Empetrum nigrum aggr.	52.0	Andromeda polifolia	52.0
Picea abies	51.0	Rhododendron tomentosum	47.0
Vaccinium oxycoccos	42.0	Rubus chamaemorus	38.0
Sphagnum magellanicum	36.0	Aulacomnium palustre	36.0
Hylocomium splendens	34.0	Betula nana	32.0
Sphagnum angustifolium	31.0	Polytrichum strictum	31.0
Polytrichum commune	30.0	Carex globularis	23.0
Sphagnum fuscum	22.0	Molinia caerulea aggr.	21.0
Sphagnum capillifolium	20.0	Melampyrum pratense	20.0
Cladonia rangiferina	20.0	Drosera rotundifolia	19.0
Vaccinium microcarpum	16.0	Sphagnum fallax	15.0
Cladonia arbuscula	15.0	Avenella flexuosa	15.0
Sorbus aucuparia	14.0	Dicranum polysetum	14.0
Betula pendula	14.0	Chamaedaphne calyculata	13.0
Dicranum scoparium	13.0	Sphagnum russowii	12.0
Frangula alnus	12.0	Carex pauciflora	12.0
Pinus mugo	11.0	Juniperus communis subsp. communis	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Pinus sylvestris	62.0	Vaccinium myrtillus	15.0
Sphagnum angustifolium	14.0	Pleurozium schreberi	14.0
Sphagnum fuscum	11.0	Sphagnum magellanicum	10.0
Eriophorum vaginatum	10.0	Pinus mugo	9.0
Vaccinium uliginosum	7.0	Sphagnum capillifolium	7.0
Rhododendron tomentosum	7.0	Calluna vulgaris	7.0
Sphagnum fallax	6.0		

T3K - [G3Db] Picea mire forest

*Diagnostic species (phi coefficient * 100)*

Sphagnum girgensohnii	37.3	Polytrichum commune	29.2
Picea abies	28.2	Vaccinium vitis-idaea	27.7
Vaccinium myrtillus	25.6	Equisetum sylvaticum	23.1
Carex globularis	22.7	Pleurozium schreberi	22.6
Hylocomium splendens	22.1	Lycopodium annotinum	21.1
Bazzania trilobata	20.9	Betula pubescens	20.0
Trientalis europaea	18.3	Sphagnum russowii	17.9
Neottia cordata	17.4	Rubus chamaemorus	17.1
Linnaea borealis	16.5		

Constant species (occurrence frequencies)

Picea abies	98.0	Vaccinium myrtillus	93.0
Vaccinium vitis-idaea	77.0	Pleurozium schreberi	70.0
Hylocomium splendens	61.0	Polytrichum commune	57.0

Betula pubescens	55.0	Sorbus aucuparia	52.0
Avenella flexuosa	45.0	Pinus sylvestris	40.0
Trientalis europaea	33.0	Equisetum sylvaticum	33.0
Dicranum scoparium	33.0	Sphagnum girgensohnii	32.0
Vaccinium uliginosum	28.0	Maianthemum bifolium	27.0
Eriophorum vaginatum	26.0	Melampyrum pratense	24.0
Aulacomnium palustre	24.0	Oxalis acetosella	23.0
Lycopodium annotinum	23.0	Carex globularis	23.0
Rubus chamaemorus	22.0	Empetrum nigrum aggr.	22.0
Linnaea borealis	20.0	Polytrichastrum formosum	19.0
Luzula pilosa	19.0	Calluna vulgaris	19.0
Molinia caerulea aggr.	18.0	Sphagnum magellanicum	17.0
Potentilla erecta	17.0	Orthilia secunda	16.0
Juniperus communis subsp. communis	16.0	Dryopteris carthusiana	16.0
Carex echinata	16.0	Sphagnum angustifolium	15.0
Dryopteris dilatata	15.0	Calamagrostis villosa	15.0
Solidago virgaurea	14.0	Ptilium crista-castrensis	14.0
Gymnocarpium dryopteris	14.0	Deschampsia cespitosa	14.0
Sphagnum russowii	13.0	Sphagnum capillifolium	13.0
Frangula alnus	13.0	Dicranum polysetum	13.0
Carex nigra	13.0	Homogyne alpina	12.0
Betula pendula	12.0	Bazzania trilobata	12.0
Rhytiadelphus triquetrus	11.0	Abies alba	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Picea abies	82.0	Vaccinium myrtillus	28.0
Sphagnum girgensohnii	20.0	Pleurozium schreberi	9.0
Sphagnum capillifolium	6.0	Hylocomium splendens	6.0
Sphagnum magellanicum	5.0		

T3N - [G3F2] Coniferous plantation of site-native trees

*Diagnostic species (phi coefficient * 100)*

Pseudotsuga menziesii	32.3	Pinus pinaster	21.5
Pinus contorta	16.7	Pseudoscleropodium purum	16.6
Rubus fruticosus aggr.	15.4	Ulex europaeus	15.0

Constant species (occurrence frequencies)

Rubus fruticosus aggr.	59.0	Quercus robur	40.0
Pinus sylvestris	36.0	Pteridium aquilinum	35.0
Avenella flexuosa	35.0	Betula pendula	34.0
Pseudoscleropodium purum	31.0	Hedera helix	28.0
Frangula alnus	28.0	Sorbus aucuparia	27.0
Polytrichastrum formosum	27.0	Picea abies	27.0
Molinia caerulea aggr.	26.0	Lonicera periclymenum	26.0
Calluna vulgaris	25.0	Pseudotsuga menziesii	24.0
Fagus sylvatica	23.0	Dicranum scoparium	22.0

Pinus pinaster	21.0	Ilex aquifolium	21.0
Corylus avellana	20.0	Vaccinium myrtillus	19.0
Teucrium scorodonia	19.0	Castanea sativa	19.0
Thuidium tamariscinum	18.0	Dryopteris carthusiana	18.0
Dryopteris dilatata	17.0	Cytisus scoparius	17.0
Quercus petraea	16.0	Pleurozium schreberi	16.0
Ulex europaeus	15.0	Crataegus monogyna	15.0
Rubus idaeus	14.0	Hypnum jutlandicum	14.0
Carex pilulifera	14.0	Sambucus nigra	13.0
Fraxinus excelsior	13.0	Dryopteris filix-mas	13.0
Erica cinerea	12.0	Salix caprea	11.0
Pinus nigra	11.0	Oxalis acetosella	11.0
Abies alba	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Pseudotsuga menziesii	21.0	Pinus sylvestris	20.0
Pinus pinaster	19.0	Picea abies	19.0
Rubus fruticosus aggr.	16.0	Pteridium aquilinum	16.0
Pseudoscleropodium purum	12.0	Molinia caerulea aggr.	11.0
Pinus nigra	9.0	Hedera helix	7.0
Avenella flexuosa	7.0	Calluna vulgaris	6.0

Appendix F: List of data providers

GIVD code	GIVD database name	Custodian	Deputy custodian	# of plots
00-00-004	Vegetation Database of Eurasian Tundra	Risto Virtanen		289
00-RU-001	Vegetation Database Forest of Southern Ural	Pavel Shirokikh		564
00-RU-005	Database of South Ural Order Arrhenatheretalia (merged with 00-RU-006)	Sergey Yamalov	Mariya Lebedeva	1018
00-TR-001	Forest Vegetation Database of Turkey - FVDT	Ali Kavgacı		743
AS-RU-005	Nenets Tundra	Igor Lavrinenko		97
AS-TR-001	Vegetation Database of the Grassland Communities in Anatolia	Deniz Işık Gürsoy	Didem Ambarlı	203
AS-TR-002	Vegetation Database of Oak Communities in Turkey	Emin Uğurlu		849
EU-00-002	Nordic-Baltic Grassland Vegetation Database (NBGVD)	Jürgen Dengler	Łukasz Kozub	4216
EU-00-004	Iberian and Macaronesian Vegetation Information System (SIVIM)	Xavier Font		4723
EU-00-004	SIVIM Alpine + SIVIM Macaronesian	Borja Jiménez-Alfaro	Xavier Font	4769
EU-00-004	SIVIM Deciduous forests	Juan Antonio Campos	Xavier Font	4035
EU-00-004	SIVIM Floodplain forests	Idoia Biurrun	Xavier Font	2826
EU-00-004	SIVIM Grasslands	Maria Pilar Rodríguez-Rojo	Xavier Font	6303
EU-00-004	SIVIM Sclerophyllous forests	Federico Fernández-González	Xavier Font	7976
EU-00-004	SIVIM Shrublands	Rosario G Gavilán	Xavier Font	2077
EU-00-004	SIVIM Wetlands	Aaron Pérez-Haase	Xavier Font	593
EU-00-011	Vegetation-Plot Database of the University of the Basque Country (BIOVEG)	Idoia Biurrun	Itziar García-Mijangos	9368
EU-00-013	Balkan Dry Grasslands Database	Kiril Vassilev	Armin Macanović	5349
EU-00-016	Mediterranean Ammophiletea database	Corrado Marcenò	Borja Jiménez-Alfaro	95
EU-00-017	European Coastal Vegetation Database	John Janssen		418
EU-00-018	The Nordic Vegetation Database	Jonathan Lenoir	Jens-Christian Svenning	4487
EU-00-019	Balkan Vegetation Database	Kiril Vassilev	Hristo Pedashenko	6521
EU-00-020	WetVegEurope	Flavia Landucci		472
EU-00-021	SE Europe forest database	Andraž Čarni		2293
EU-00-022	European Mire Vegetation Database	Tomáš Peterka	Martin Jiroušek	3438
EU-00-025	Gravel bar vegetation database	Veronika Kalníková	Helmut Kudrnovsky	385
EU-00-026	CircumMed+Euro Pine Forest database	Gianmaria Bonari		3464
EU-00-027	European Boreal Forest Vegetation Database	Anni Kanerva Pyykönen		5128
EU-00-028	European Weed Vegetation Database	Filip Kuzmič		1151
EU-AL-001	Vegetation Database of Albania	Michele De Sanctis	Giuliano Fanelli	189
EU-AT-001	Austrian Vegetation Database	Wolfgang Willner		31752
EU-BE-002	INBOVEG	Els De Bie		11276
EU-BG-001	Bulgarian Vegetation Database	Iva Apostolova	Desislava Sopotlieva	1976

EU-CZ-001	Czech National Phytosociological Database	Milan Chytrý	Ilona Knollová	47887
EU-DE-001	VegMV	Florian Jansen	Christian Berg	16603
EU-DE-013	VegetWeb Germany	Jörg Ewald	Florian Jansen	16178
EU-DE-014	German Vegetation Reference Database (GVRD)	Ute Jandt	Helge Bruelheide	41819
EU-DE-020	German Grassland Vegetation Database (GrassVeg.DE)	Jürgen Dengler	Ricarda Pätsch	4591
EU-DE-035	Coastal Vegetation Germany	Maike Isermann	Florian Jansen	2275
EU-FR-003	SOPHY	Henry Brisse	Patrice de Ruffray	89839
EU-FR-005	EcoPlant	Jean-Claude Gégout	Ingrid Seynave	3044
EU-GB-001	UK National Vegetation Classification Database	John S. Rodwell		19244
EU-GR-001	KRITI	Erwin Bergmeier		1562
EU-GR-005	Hellenic Natura 2000 Vegetation Database (HelNatVeg)	Panayotis Dimopoulos	Ioannis Tsiripidis	3826
EU-GR-006 + EU-GR-007	Hellenic Woodland Database + Hellenic Beech Forests Database (Hell-Beech-DB)	Ioannis Tsiripidis		2095
EU-HR-001	Phytosociological Database of Non-Forest Vegetation in Croatia	Zvezdana Stančić		1845
EU-HR-002	Croatian Vegetation Database	Željko Škvorc	Daniel Krstonošić	4491
EU-HU-003	CoenoDat Hungarian Phytosociological Database	János Csiky	Zoltán Botta-Dukát	3692
EU-CH-005	Swiss Forest Vegetation Database	Thomas Wohlgemuth		9922
EU-CH-011	Monitoring Effectiveness of Habitat Conservation in Switzerland	Ariel Bergamini	Steffen Boch	16296
EU-IE-001	Irish Vegetation Database	Úna FitzPatrick	Lynda Weekes	12053
EU-IT-001	VegItaly	Roberto Venanzoni	Flavia Landucci	8968
EU-IT-010	Vegetation database of Habitats in the Italian Alps - HabItAlp	Laura Casella	Pierangela Angelini	2828
EU-IT-011	Vegetation Plot Database - Sapienza University of Rome	Emiliano Agrillo	Fabio Attorre	11927
EU-IT-019	VIOLA	Angela Stanisci	Alberto Evangelista	1014
EU-LT-001	Lithuanian vegetation Database	Valerius Rašomavičius	Domas Uogintas	3535
EU-LV-001	Semi-natural Grassland Vegetation Database of Latvia	Solvita Rūsiņa		4079
EU-MK-001	Vegetation Database of the Republic of Macedonia	Renata Čušterevska		753
EU-NL-001	Dutch National Vegetation Database	Stephan Hennekens	Joop Schaminée	48197
EU-NL-003	Dutch Military Ranges Vegetation Database (DUMIRA)	Iris de Ronde	Rense Haveman	5843
EU-PL-001	Polish Vegetation Database	Zygmunt Kački	Grzegorz Swacha	33167
EU-PL-003	Forest Database of Southern Poland	Remigiusz Pielech		2742
EU-RO-007	Romanian Forest Database	Adrian Indreica	Pavel Dan Turtureanu	5472
EU-RO-008	Romanian Grassland Database	Eszter Ruprecht	Kiril Vassilev	14114
EU-RS-002	Vegetation Database Grassland Vegetation of Serbia	Svetlana Ačić	Zora Dajić Stevanović	3448
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 Čuk		2176
EU-RU-002	Lower Volga Valley Phytosociological Database	Valentin Golub	Viktoria Bondareva	3611
EU-RU-003	Vegetation Database of the Volga and the Ural Rivers Basins	Tatiana Lysenko		763
EU-RU-011	Vegetation Database of Tatarstan	Vadim Prokhorov		413

EU-RU-014	Temperate Forests of European Russia	Larisa Khanina	Maxim Bobrovsky	1704
EU-SI-001	Vegetation Database of Slovenia	Urban Šilc		5849
EU-SK-001	Slovak Vegetation Database	Milan Valachovič	Jozef Šibík	21033
EU-UA-001	Ukrainian Grassland Database	Anna Kuzemko	Yulia Vashenyak	2866
EU-UA-005	Halophytic and coastal vegetation database of Ukraine	Tetiana Dziuba	Dmytro Dubyna	614
EU-UA-006	Vegetation Database of Ukraine and Adjacent Parts of Russia	Viktor Onyshchenko	Vitaliy Kolomyichuk	1542
	European Alpine Vegetation Database	Borja Jiménez-Alfaro	Jozef Šibík	2069
	Finnish National Forest Inventory (LUKE)	Päivi Merilä		1150
	French National Forest Inventory	https://inventaire-forestier.ign.fr/spip.php?rubrique149		18926
	Swedish National Forest Inventory	https://www.slu.se/nfi		11318
	Teberda - Caucasus Vegetation Database	Vladimir Onipchenko	Alexei Egorov	436
	UK Floodplain Meadows Database	Irina Tatarenko		10607
	Vegetation data of Serra da Estrela	Jan Jansen		800
	Vegetation database of steppe vegetation of Rostov Region	Olga Demina		714
	Private data of Andraž Čarni	Andraž Čarni		118
	Private data of Borja Jiménez-Alfaro	Borja Jiménez-Alfaro		704
	Private data of Corrado Marcenò	Corrado Marcenò		319
	Private data of Erwin Bergmeier	Erwin Bergmeier		7
	Private data of Ioannis Tsiripidis	Ioannis Tsiripidis		64
	Private data of Thomas Becker	Thomas Becker		48
	Private data of Thomas Michl	Thomas Michl		1083
	Private data of Yakiv Didukh	Yakiv Didukh		83
	Various data of Vegetation Science Group, Masaryk University	Milan Chytrý	Ilona Knollová	455
			Total	661864