

Council Directive 2013/17/EU of 13 May 2013 adapting certain directives in the field of environment, by reason of the accession of the Republic of Croatia

COUNCIL DIRECTIVE 2013/17/EU

of 13 May 2013

adapting certain directives in the field of environment,  
by reason of the accession of the Republic of Croatia

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to the Treaty of Accession of Croatia, and in particular Article 3(4) thereof,

Having regard to the Act of Accession of Croatia, and in particular Article 50 thereof,

Having regard to the proposal from the European Commission,

Whereas:

- (1) Pursuant to Article 50 of the Act of Accession of Croatia, where acts of the institutions adopted prior to accession require adaptation by reason of accession, and the necessary adaptations have not been provided for in that Act of Accession or in the Annexes thereto, the Council, acting by qualified majority on a proposal from the Commission, shall, to this end, adopt the necessary acts, if the original act was not adopted by the Commission.
- (2) The Final Act of the Conference which drew up and adopted the Treaty of Accession of Croatia indicated that the High Contracting Parties had reached political agreement on a set of adaptations to acts adopted by the institutions required by reason of accession and invited the Council and the Commission to adopt those adaptations before accession, completed and updated where necessary to take account of the evolution of the law of the Union.
- (3) Directives 92/43/EEC<sup>(1)</sup>, 2001/81/EC<sup>(2)</sup> and 2009/147/EC<sup>(3)</sup> should therefore be amended accordingly,

HAS ADOPTED THIS DIRECTIVE:

*Article 1*

Directives 92/43/EEC, 2001/81/EC and 2009/147/EC are amended as set out in the Annex to this Directive.

*Article 2*

1 Member States shall adopt and publish, by the date of accession of Croatia to the Union at the latest, the laws, regulations and administrative provisions necessary to comply with this Directive. They shall forthwith communicate to the Commission the text of those provisions.

They shall apply those provisions from the date of accession of Croatia to the Union.

When Member States adopt those measures, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

2 Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

*Article 3*

This Directive shall enter into force subject to and as from the date of the entry into force of the Treaty of Accession of Croatia.

*Article 4*

This Directive is addressed to the Member States.

Done at Brussels, 13 May 2013.

*For the Council*

*The President*

S. COVENEY

## ANNEX

## PART A

**INDUSTRIAL POLLUTION CONTROL AND RISK MANAGEMENT**

Directive 2001/81/EC is amended as follows:

- (1) Annex I is replaced by the following:

‘ANNEX NATIONAL EMISSION CEILINGS FOR SO<sub>2</sub>, NO<sub>x</sub>, VOC AND NH<sub>3</sub>, TO BE ATTAINED BY 2010

These national emission ceilings are designed with the aim of broadly meeting the interim environmental objectives set out in Article 5. Meeting those objectives is expected to result in a reduction of soil eutrophication to such an extent that the area of the Union with depositions of nutrient nitrogen in excess of the critical loads will be reduced by about 30 % compared with the situation in 1990. These national emission ceilings are temporary and are without prejudice to the review according to Article 10 of this Directive, which is to be completed in 2008. The national emission ceilings for Croatia are to be attained by the date of its accession to the Union.’

Country	SO <sub>2</sub> Kilotonnes	NO <sub>x</sub> Kilotonnes	VOCKilotonnes	NH <sub>3</sub> Kilotonnes
Belgium	991761			
Republic	26528622080			
Denmark	551278569			
Germany	5201051995550			
Estonia	100604929			
Ireland	426555116			
Greece	52334426173			
Spain	746847662353			
France	050780			
Croatia	70879030			
Italy	4759901159419			
Cyprus	3923149			
Latvia	1016113644			
Lithuania	1451109284			
Luxembourg	41197			
Hungary	500397879800468			
Portugal	16025018090			
Romania	918437523210			
Slovenia	27454020			
Slovakia	110130			
Kingdom	58511671200297			
EU	288367909089384324			

- (2) In Annex II, the table is replaced by the following:

	‘SO <sub>2</sub> Kilotonnes	NO <sub>x</sub> Kilotonnes	VOCKilotonnes
<b>EU 28<sup>a</sup></b>	7 902	8 267	7 675

**a** These emission ceilings are temporary and are without prejudice to the review according to Article 10 of this Directive, which is to be completed in 2008.’

## PART B

**NATURE PROTECTION**

- (1) Directive 92/43/EEC is amended as follows:

- (a) Annex I is replaced by the following:

## ANNEX I

**NATURAL HABITAT TYPES OF COMMUNITY INTEREST WHOSE CONSERVATION REQUIRES THE DESIGNATION OF SPECIAL AREAS OF CONSERVATION**  
**Interpretation**

Guidance on the interpretation of habitat types is given in the *Interpretation Manual of European Union Habitats* as approved by the committee set up under Article 20 (“Habitats Committee”) and published by the European Commission<sup>(4)</sup>.

The code corresponds to the Natura 2000 code.

The sign “\*” indicates priority habitat types.

1. COASTAL AND HALOPHYTIC HABITATS

11. **Open sea and tidal areas**

- 1110 Sandbanks which are slightly covered by sea water all the time
- 1120 \* *Posidonia* beds (*Posidonion oceanicae*)
- 1130 Estuaries
- 1140 Mudflats and sandflats not covered by seawater at low tide
- 1150 \* Coastal lagoons
- 1160 Large shallow inlets and bays
- 1170 Reefs
- 1180 Submarine structures made by leaking gases

12. **Sea cliffs and shingle or stony beaches**

- 1210 Annual vegetation of drift lines
- 1220 Perennial vegetation of stony banks
- 1230 Vegetated sea cliffs of the Atlantic and Baltic Coasts
- 1240 Vegetated sea cliffs of the Mediterranean coasts with endemic *Limonium* spp.
- 1250 Vegetated sea cliffs with endemic flora of the Macaronesian coasts

13. **Atlantic and continental salt marshes and salt meadows**

- 1310 *Salicornia* and other annuals colonizing mud and sand
- 1320 *Spartina* swards (*Spartinion maritimae*)
- 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)
- 1340 \* Inland salt meadows

14. **Mediterranean and thermo-Atlantic salt marshes and salt meadows**

- 1410 Mediterranean salt meadows (*Juncetalia maritimi*)
- 1420 Mediterranean and thermo-Atlantic halophilous scrubs (*Sarcocornetea fruticosi*)
- 1430 Halo-nitrophilous scrubs (*Pegano-Salsoletea*)

15. **Salt and gypsum inland steppes**

- 1510 \* Mediterranean salt steppes (*Limonietalia*)
- 1520 \* Iberian gypsum vegetation (*Gypsophiletalia*)
- 1530 \* Pannonic salt steppes and salt marshes

16. **Boreal Baltic archipelago, coastal and landupheaval areas**

- 1610 Baltic esker islands with sandy, rocky and shingle beach vegetation and sublittoral vegetation

- 1620 Boreal Baltic islets and small islands  
 1630 \* Boreal Baltic coastal meadows  
 1640 Boreal Baltic sandy beaches with perennial vegetation  
 1650 Boreal Baltic narrow inlets
2. COASTAL SAND DUNES AND INLAND DUNES
21. **Sea dunes of the Atlantic, North Sea and Baltic coasts**
- 2110 Embryonic shifting dunes  
 2120 Shifting dunes along the shoreline with *Ammophila arenaria* (“white dunes”)  
 2130 \* Fixed coastal dunes with herbaceous vegetation (“grey dunes”)  
 2140 \* Decalcified fixed dunes with *Empetrum nigrum*  
 2150 \* Atlantic decalcified fixed dunes (*Calluno-Ulicetea*)  
 2160 Dunes with *Hippophaë rhamnoides*  
 2170 Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*)  
 2180 Wooded dunes of the Atlantic, Continental and Boreal region  
 2190 Humid dune slacks  
 21A0 Machairs (\* in Ireland)
22. **Sea dunes of the Mediterranean coast**
- 2210 *Crucianellion maritimae* fixed beach dunes  
 2220 Dunes with *Euphorbia terracina*  
 2230 *Malcolmietalia* dune grasslands  
 2240 *Brachypodietalia* dune grasslands with annuals  
 2250 \* Coastal dunes with *Juniperus* spp.  
 2260 *Cisto-Lavenduletales* dune sclerophyllous scrubs  
 2270 \* Wooded dunes with *Pinus pinea* and/or *Pinus pinaster*
23. **Inland dunes, old and decalcified**
- 2310 Dry sand heaths with *Calluna* and *Genista*  
 2320 Dry sand heaths with *Calluna* and *Empetrum nigrum*  
 2330 Inland dunes with open *Corynephorus* and *Agrostis* grasslands  
 2340 \* Pannonic inland dunes
3. FRESHWATER HABITATS
31. **Standing water**
- 3110 Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*)  
 3120 Oligotrophic waters containing very few minerals generally on sandy soils of the West Mediterranean, with *Isoetes* spp.  
 3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea*  
 3140 Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp.

- 3150 Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition* — type vegetation
- 3160 Natural dystrophic lakes and ponds
- 3170 \* Mediterranean temporary ponds
- 3180 \* Turloughs
- 3190 Lakes of gypsum karst
- 31A0 \* Transylvanian hot-spring lotus beds
32. **Running water — sections of water courses with natural or semi-natural dynamics (minor, average and major beds) where the water quality shows no significant deterioration**
- 3210 Fennoscandian natural rivers
- 3220 Alpine rivers and the herbaceous vegetation along their banks
- 3230 Alpine rivers and their ligneous vegetation with *Myricaria germanica*
- 3240 Alpine rivers and their ligneous vegetation with *Salix elaeagnos*
- 3250 Constantly flowing Mediterranean rivers with *Glaucium flavum*
- 3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation
- 3270 Rivers with muddy banks with *Chenopodium rubri* p.p. and *Bidention* p.p. vegetation
- 3280 Constantly flowing Mediterranean rivers with *Paspalo-Agrostidion* species and hanging curtains of *Salix* and *Populus alba*
- 3290 Intermittently flowing Mediterranean rivers of the *Paspalo-Agrostidion*
- 32A0 Tufa cascades of karstic rivers in the Dinaric Alps
4. TEMPERATE HEATH AND SCRUB
- 4010 Northern Atlantic wet heaths with *Erica tetralix*
- 4020 \* Temperate Atlantic wet heaths with *Erica ciliaris* and *Erica tetralix*
- 4030 European dry heaths
- 4040 \* Dry Atlantic coastal heaths with *Erica vagans*
- 4050 \* Endemic macaronesian heaths
- 4060 Alpine and Boreal heaths
- 4070 \* Bushes with *Pinus mugo* and *Rhododendron hirsutum* (*Mugo-Rhododendretum hirsuti*)
- 4080 Sub-Arctic *Salix* spp. Scrub
- 4090 Endemic oro-Mediterranean heaths with gorse
- 40A0 \* Subcontinental peri-Pannonic scrub
- 40B0 Rhodope *Potentilla fruticosa* thickets
- 40C0 \* Ponto-Sarmatic deciduous thickets
5. SCLEROPHYLLOUS SCRUB (MATORRAL)
51. **Sub-Mediterranean and temperate scrub**
- 5110 Stable xerothermophilous formations with *Buxus sempervirens* on rock slopes (*Berberidion* p.p.)

- 5120 Mountain *Cytisus purgans* formations
- 5130 *Juniperus communis* formations on heaths or calcareous grasslands
- 5140 \* *Cistus palhinhae* formations on maritime wet heaths
52. **Mediterranean arborescent matorral**
- 5210 Arborescent matorral with *Juniperus* spp.
- 5220 \* Arborescent matorral with *Zyziphus*
- 5230 \* Arborescent matorral with *Laurus nobilis*
53. **Thermo-Mediterranean and pre-steppe brush**
- 5310 *Laurus nobilis* thickets
- 5320 Low formations of *Euphorbia* close to cliffs
- 5330 Thermo-Mediterranean and pre-desert scrub
54. **Phrygana**
- 5410 West Mediterranean cliff-top phryganas (*Astragalus-Plantaginatum subulatae*)
- 5420 *Sarcopoterium spinosum* phryganas
- 5430 Endemic phryganas of the *Euphorbio-Verbascion*
6. NATURAL AND SEMI-NATURAL GRASSLAND FORMATIONS
61. **Natural grasslands**
- 6110 \* Rupicolous calcareous or basophilic grasslands of the *Alyso-Sedion albi*
- 6120 \* Xeric sand calcareous grasslands
- 6130 Calaminarian grasslands of the *Violetalia calaminariae*
- 6140 Siliceous Pyrenean *Festuca eskia* grasslands
- 6150 Siliceous alpine and boreal grasslands
- 6160 Oro-Iberian *Festuca indigesta* grasslands
- 6170 Alpine and subalpine calcareous grasslands
- 6180 Macaronesian mesophile grasslands
- 6190 Rupicolous pannonic grasslands (*Stipo-Festucetalia pallentis*)
62. **Semi-natural dry grasslands and scrubland facies**
- 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (\* important orchid sites)
- 6220 \* Pseudo-steppe with grasses and annuals of the *Thero-Brachypodietea*
- 6230 \* Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas (and submountain areas in Continental Europe)
- 6240 \* Sub-Pannonic steppic grasslands
- 6250 \* Pannonic loess steppic grasslands
- 6260 \* Pannonic sand steppes
- 6270 \* Fennoscandian lowland species-rich dry to mesic grasslands
- 6280 \* Nordic alvar and precambrian calcareous flatrocks

- 62A0 Eastern sub-Mediterranean dry grasslands (*Scorzoneratalia villosae*)
- 62B0 \* Serpentinophilous grassland of Cyprus
- 62C0 \* Ponto-Sarmatic steppes
- 62D0 Oro-Moesian acidophilous grasslands
63. **Sclerophyllous grazed forests (dehesas)**
- 6310 Dehesas with evergreen *Quercus* spp.
64. **Semi-natural tall-herb humid meadows**
- 6410 *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)
- 6420 Mediterranean tall humid grasslands of the *Molinio-Holoschoenion*
- 6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels
- 6440 Alluvial meadows of river valleys of the *Cnidion dubii*
- 6450 Northern boreal alluvial meadows
- 6460 Peat grasslands of Troodos
65. **Mesophile grasslands**
- 6510 Lowland hay meadows (*Alopecurus pratensis*, *Sanguisorba officinalis*)
- 6520 Mountain hay meadows
- 6530 \* Fennoscandian wooded meadows
- 6540 Sub-Mediterranean grasslands of the *Molinio-Hordeion secalini*
7. RAISED BOGS AND MIRES AND FENS
71. **Sphagnum acid bogs**
- 7110 \* Active raised bogs
- 7120 Degraded raised bogs still capable of natural regeneration
- 7130 Blanket bogs (\* if active bog)
- 7140 Transition mires and quaking bogs
- 7150 Depressions on peat substrates of the *Rhynchosporion*
- 7160 Fennoscandian mineral-rich springs and springfens
72. **Calcareous fens**
- 7210 \* Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*
- 7220 \* Petrifying springs with tufa formation (*Cratoneurion*)
- 7230 Alkaline fens
- 7240 \* Alpine pioneer formations of the *Caricion bicoloris-atrofuscae*
73. **Boreal mires**
- 7310 \* Aapa mires
- 7320 \* Palsa mires



8. ROCKY HABITATS AND CAVES
81. **Scree**
- 8110 Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*)
- 8120 Calcareous and calcshist screes of the montane to alpine levels (*Thlaspietea rotundifolii*)
- 8130 Western Mediterranean and thermophilous scree
- 8140 Eastern Mediterranean screes
- 8150 Medio-European upland siliceous screes
- 8160 \* Medio-European calcareous scree of hill and montane levels
82. **Rocky slopes with chasmophytic vegetation**
- 8210 Calcareous rocky slopes with chasmophytic vegetation
- 8220 Siliceous rocky slopes with chasmophytic vegetation
- 8230 Siliceous rock with pioneer vegetation of the *Sedo-Scleranthion* or of the *Sedo albi-Veronicion dillenii*
- 8240 \* Limestone pavements
83. **Other rocky habitats**
- 8310 Caves not open to the public
- 8320 Fields of lava and natural excavations
- 8330 Submerged or partially submerged sea caves
- 8340 Permanent glaciers
9. FORESTS
- (Sub)natural woodland vegetation comprising native species forming forests of tall trees, with typical undergrowth, and meeting the following criteria: rare or residual, and/or hosting species of Community interest**
90. **Forests of Boreal Europe**
- 9010 \* Western Taïga
- 9020 \* Fennoscandian hemiboreal natural old broad-leaved deciduous forests (*Quercus*, *Tilia*, *Acer*, *Fraxinus* or *Ulmus*) rich in epiphytes
- 9030 \* Natural forests of primary succession stages of landupheaval coast
- 9040 Nordic subalpine/subarctic forests with *Betula pubescens* ssp. *czerepanovii*
- 9050 Fennoscandian herb-rich forests with *Picea abies*
- 9060 Coniferous forests on, or connected to, glaciofluvial eskers
- 9070 Fennoscandian wooded pastures
- 9080 \* Fennoscandian deciduous swamp woods
91. **Forests of Temperate Europe**
- 9110 *Luzulo-Fagetum* beech forests
- 9120 Atlantic acidophilous beech forests with *Ilex* and sometimes also *Taxus* in the shrublayer (*Quercion robori-petraeae* or *Ilici-Fagenion*)

- 9130 *Asperulo-Fagetum* beech forests
- 9140 Medio-European subalpine beech woods with *Acer* and *Rumex arifolius*
- 9150 Medio-European limestone beech forests of the *Cephalanthero-Fagion*
- 9160 Sub-Atlantic and medio-European oak or oak-hornbeam forests of the *Carpinion betuli*
- 9170 *Galio-Carpinetum* oak-hornbeam forests
- 9180 \* *Tilio-Acerion* forests of slopes, screes and ravines
- 9190 Old acidophilous oak woods with *Quercus robur* on sandy plains
- 91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles
- 91B0 Thermophilous *Fraxinus angustifolia* woods
- 91C0 \* Caledonian forest
- 91D0 \* Bog woodland
- 91E0 \* Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)
- 91F0 Riparian mixed forests of *Quercus robur*, *Ulmus laevis* and *Ulmus minor*, *Fraxinus excelsior* or *Fraxinus angustifolia*, along the great rivers (*Ulmion minoris*)
- 91G0 \* Pannonic woods with *Quercus petraea* and *Carpinus betulus*
- 91H0 \* Pannonian woods with *Quercus pubescens*
- 91I0 \* Euro-Siberian steppic woods with *Quercus* spp.
- 91J0 \* *Taxus baccata* woods of the British Isles
- 91K0 Illyrian *Fagus sylvatica* forests (*Aremonio-Fagion*)
- 91L0 Illyrian oak-hornbeam forests (*Erythronio-Carpinion*)
- 91M0 Pannonian-Balkan turkey oak — sessile oak forests
- 91N0 \* Pannonic inland sand dune thicket (*Junipero-Populetum albae*)
- 91P0 Holy Cross fir forest (*Abietetum polonicum*)
- 91Q0 Western Carpathian calcicolous *Pinus sylvestris* forests
- 91R0 Dinaric dolomite Scots pine forests (*Genisto januensis-Pinetum*)
- 91S0 \* Western Pontic beech forests
- 91T0 Central European lichen Scots pine forests
- 91U0 Sarmatic steppe pine forest
- 91V0 Dacian Beech forests (*Symphyto-Fagion*)
- 91W0 Moesian beech forests
- 91X0 \* Dobrogean beech forests
- 91Y0 Dacian oak & hornbeam forests
- 91Z0 Moesian silver lime woods
- 91AA \* Eastern white oak woods
- 91BA Moesian silver fir forests
- 91CA Rhodopide and Balkan Range Scots pine forests
92. **Mediterranean deciduous forests**
- 9210 \* Apennine beech forests with *Taxus* and *Ilex*
- 9220 \* Apennine beech forests with *Abies alba* and beech forests with *Abies nebrodensis*

- 9230 Galicio-Portuguese oak woods with *Quercus robur* and *Quercus pyrenaica*
- 9240 *Quercus faginea* and *Quercus canariensis* Iberian woods
- 9250 *Quercus trojana* woods
- 9260 *Castanea sativa* woods
- 9270 Hellenic beech forests with *Abies borisii-regis*
- 9280 *Quercus frainetto* woods
- 9290 *Cupressus* forests (*Acero-Cupression*)
- 92A0 *Salix alba* and *Populus alba* galleries
- 92B0 Riparian formations on intermittent Mediterranean water courses with *Rhododendron ponticum*, *Salix* and others
- 92C0 *Platanus orientalis* and *Liquidambar orientalis* woods (*Platanion orientalis*)
- 92D0 Southern riparian galleries and thickets (*Nerio-Tamaricetea* and *Securinegion tinctoriae*)
93. **Mediterranean sclerophyllous forests**
- 9310 Aegean *Quercus brachyphylla* woods
- 9320 *Olea* and *Ceratonia* forests
- 9330 *Quercus suber* forests
- 9340 *Quercus ilex* and *Quercus rotundifolia* forests
- 9350 *Quercus macrolepis* forests
- 9360 \* Macaronesian laurel forests (*Laurus*, *Ocotea*)
- 9370 \* Palm groves of *Phoenix*
- 9380 Forests of *Ilex aquifolium*
- 9390 \* Scrub and low forest vegetation with *Quercus alnifolia*
- 93A0 Woodlands with *Quercus infectoria* (*Anagyro foetidae-Quercetum infectoriae*)
94. **Temperate mountainous coniferous forests**
- 9410 Acidophilous *Picea* forests of the montane to alpine levels (*Vaccinio-Piceetea*)
- 9420 Alpine *Larix decidua* and/or *Pinus cembra* forests
- 9430 Subalpine and montane *Pinus uncinata* forests (\* if on gypsum or limestone)
95. **Mediterranean and Macaronesian mountainous coniferous forests**
- 9510 \* Southern Apennine *Abies alba* forests
- 9520 *Abies pinsapo* forests
- 9530 \* (Sub-) Mediterranean pine forests with endemic black pines
- 9540 Mediterranean pine forests with endemic Mesogean pines
- 9550 Canarian endemic pine forests
- 9560 \* Endemic forests with *Juniperus* spp.
- 9570 \* *Tetraclinis articulata* forests
- 9580 \* Mediterranean *Taxus baccata* woods
- 9590 \* *Cedrus brevifolia* forests (*Cedrosetum brevifoliae*)
- 95A0 High oro-Mediterranean pine forests

- (b) Annex II is replaced by the following:

‘ANNEX II

**ANIMAL AND PLANT SPECIES OF COMMUNITY  
INTEREST WHOSE CONSERVATION REQUIRES THE  
DESIGNATION OF SPECIAL AREAS OF CONSERVATION**

**Interpretation**

- (a) Annex II follows on from Annex I for the establishment of a consistent network of special areas of conservation.
- (b) The species listed in this Annex are indicated:
- by the name of the species or subspecies, or
  - by all the species belonging to a higher taxon or to a designated part of that taxon.

The abbreviation “spp.” after the name of a family or genus designates all the species belonging to that family or genus.

- (c) Symbols

An asterisk (\*) before the name of a species indicates that it is a priority species.

Most species listed in this Annex are also listed in Annex IV. Where a species appears in this Annex but does not appear in either Annex IV or Annex V, the species name is followed by the symbol (o); where a species which appears in this Annex also appears in Annex V but does not appear in Annex IV, its name is followed by the symbol (V).

- (a) **ANIMALS**

**VERTEBRATES**

**MAMMALS**

**INSECTIVORA**

Talpidae

*Galemys pyrenaicus*

**CHIROPTERA**

Rhinolophidae

*Rhinolophus blasii*

*Rhinolophus euryale*

*Rhinolophus ferrumequinum*

*Rhinolophus hipposideros*

*Rhinolophus mehelyi*

Vespertilionidae

*Barbastella barbastellus*

*Miniopterus schreibersii*

*Myotis bechsteinii*

*Myotis blythii*

*Myotis capaccinii*

*Myotis dasycneme*

*Myotis emarginatus*

*Myotis myotis*

Pteropodidae

*Rousettus aegyptiacus*

RODENTIA

Gliridae

*Myomimus roachi*

Sciuridae

\* *Marmota marmota latirostris*

\* *Pteromys volans (Sciuropterus russicus)*

*Spermophilus citellus (Citellus citellus)*

\* *Spermophilus suslicus (Citellus suslicus)*

Castoridae

*Castor fiber* (except the Estonian, Latvian, Lithuanian, Finnish and Swedish populations)

Cricetidae

*Mesocricetus newtoni*

Microtidae

*Dinaromys bogdanovi*

*Microtus cabreræ*

\* *Microtus oeconomus arenicola*

\* *Microtus oeconomus mehelyi*

*Microtus tatricus*

Zapodidae

*Sicista subtilis*

CARNIVORA

Canidae

\* *Alopex lagopus*

\* *Canis lupus* (except the Estonian population; Greek populations: only south of the 39th parallel; Spanish populations: only those south of the Duero; Latvian, Lithuanian and Finnish populations).

Ursidae

\* *Ursus arctos* (except the Estonian, Finnish and Swedish populations)

Mustelidae

\* *Gulo gulo*

*Lutra lutra*

*Mustela eversmanii*

\* *Mustela lutreola*

*Vormela peregusna*

Felidae

*Lynx lynx* (except the Estonian, Latvian and Finnish populations)

\* *Lynx pardinus*

Phocidae

*Halichoerus grypus* (V)

\* *Monachus monachus*

*Phoca hispida bottnica* (V)

\* *Phoca hispida saimensis*

*Phoca vitulina* (V)

ARTIODACTYLA

Cervidae

\* *Cervus elaphus corsicanus*

*Rangifer tarandus fennicus* (o)

Bovidae

\* *Bison bonasus*

*Capra aegagrus* (natural populations)

\* *Capra pyrenaica pyrenaica*

*Ovis gmelini musimon* (*Ovis ammon musimon*) (natural populations — Corsica and Sardinia)

*Ovis orientalis ophion* (*Ovis gmelini ophion*)

\* *Rupicapra pyrenaica ornata* (*Rupicapra rupicapra ornata*)

*Rupicapra rupicapra balcanica*

\* *Rupicapra rupicapra tatrica*

CETACEA

*Phocoena phocoena*

*Tursiops truncatus*

REPTILES

CHELONIA (TESTUDINES)

Testudinidae

*Testudo graeca*

*Testudo hermanni*

*Testudo marginata*

Cheloniidae

\* *Caretta caretta*

\* *Chelonia mydas*

Emydidae

*Emys orbicularis*

*Mauremys caspica*

*Mauremys leprosa*

SAURIA

Lacertidae

*Dinarolacerta mosorensis*

*Lacerta bonnali (Lacerta monticola)*

*Lacerta monticola*

*Lacerta schreiberi*

*Gallotia galloti insulanagae*

\* *Gallotia simonyi*

*Podarcis lilfordi*

*Podarcis pityusensis*

Scincidae

*Chalcides simonyi (Chalcides occidentalis)*

Gekkonidae

*Phyllodactylus europaeus*

OPHIDIA (SERPENTES)

Colubridae

\* *Coluber cypriensis*

*Elaphe quatuorlineata*

*Elaphe situla*

\* *Natrix natrix cypriaca*

Viperidae

\* *Macrovipera schweizeri (Vipera lebetina schweizeri)*

*Vipera ursinii (except Vipera ursinii rakosiensis and Vipera ursinii macrops)*

\* *Vipera ursinii macrops*

\* *Vipera ursinii rakosiensis*

AMPHIBIANS

CAUDATA

Salamandridae

*Chioglossa lusitanica*

*Mertensiella luschani* (*Salamandra luschani*)

\* *Salamandra aurorae* (*Salamandra atra aurorae*)

*Salamandrina terdigitata*

*Triturus carnifex* (*Triturus cristatus carnifex*)

*Triturus cristatus* (*Triturus cristatus cristatus*)

*Triturus dobrogicus* (*Triturus cristatus dobrogicus*)

*Triturus karelinii* (*Triturus cristatus karelinii*)

*Triturus montandoni*

*Triturus vulgaris ampelensis*

Proteidae

\* *Proteus anguinus*

Plethodontidae

*Hydromantes* (*Speleomantes*) *ambrosii*

*Hydromantes* (*Speleomantes*) *flavus*

*Hydromantes* (*Speleomantes*) *genei*

*Hydromantes* (*Speleomantes*) *imperialis*

*Hydromantes* (*Speleomantes*) *strinatii*

*Hydromantes* (*Speleomantes*) *supramontis*

ANURA

Discoglossidae

\* *Alytes muletensis*

*Bombina bombina*

*Bombina variegata*

*Discoglossus galganoi* (including *Discoglossus* “*jeanneae*”)

*Discoglossus montalentii*

*Discoglossus sardus*

Ranidae

*Rana latastei*

Pelobatidae

\* *Pelobates fuscus insubricus*

FISH

PETROMYZONIFORMES

Petromyzonidae

*Eudontomyzon* spp. (o)



*Lampetra fluviatilis* (V) (except the Finnish and Swedish populations)

*Lampetra planeri* (o) (except the Estonian, Finnish, and Swedish populations)

*Lethenteron zanandreae* (V)

*Petromyzon marinus* (o) (except the Swedish populations)

ACIPENSERIFORMES

Acipenseridae

\* *Acipenser naccarii*

\* *Acipenser sturio*

CLUPEIFORMES

Clupeidae

*Alosa* spp. (V)

SALMONIFORMES

Salmonidae

*Hucho hucho* (natural populations) (V)

*Salmo macrostigma* (o)

*Salmo marmoratus* (o)

*Salmo salar* (only in fresh water) (V) (except the Finnish populations)

*Salmothymus obtusirostris* (o)

Coregonidae

\* *Coregonus oxyrhynchus* (anadromous populations in certain sectors of the North Sea)

Umbridae

*Umbra krameri* (o)

CYPRINIFORMES

Cyprinidae

*Alburnus albidus* (o) (*Alburnus vulturius*)

*Aulopyge huegelii* (o)

*Anaocypris hispanica*

*Aspius aspius* (V) (except the Finnish populations)

*Barbus comiza* (V)

*Barbus meridionalis* (V)

*Barbus plebejus* (V)

*Chalcalburnus chalcoides* (o)

*Chondrostoma genei* (o)

*Chondrostoma knerii* (o)

*Chondrostoma lusitanicum* (o)

*Chondrostoma phoxinus* (o)  
*Chondrostoma polylepis* (o) (including *C. willkommi*)  
*Chondrostoma soetta* (o)  
*Chondrostoma toxostoma* (o)  
*Gobio albipinnatus* (o)  
*Gobio kessleri* (o)  
*Gobio uranoscopus* (o)  
*Iberocypris palaciosi* (o)  
\* *Ladigesocypris ghigii* (o)  
*Leuciscus lucumonis* (o)  
*Leuciscus souffia* (o)  
*Pelecus cultratus* (V)  
*Phoxinellus spp.* (o)  
\* *Phoxinus percnurus*  
*Rhodeus sericeus amarus* (o)  
*Rutilus pigus* (V)  
*Rutilus rubilio* (o)  
*Rutilus arcasii* (o)  
*Rutilus macrolepidotus* (o)  
*Rutilus lemmingii* (o)  
*Rutilus frisii meidingeri* (V)  
*Rutilus alburnoides* (o)  
*Scardinius graecus* (o)  
*Squalius microlepis* (o)  
*Squalius svallize* (o)  
Cobitidae  
*Cobitis elongata* (o)  
*Cobitis taenia* (o) (except the Finnish populations)  
*Cobitis trichonica* (o)  
*Misgurnus fossilis* (o)  
*Sabanejewia aurata* (o)  
*Sabanejewia larvata* (o) (*Cobitis larvata* and *Cobitis conspersa*)

## SILURIFORMES

## Siluridae

*Silurus aristotelis* (V)

## ATHERINIFORMES

## Cyprinodontidae

*Aphanius iberus* (o)*Aphanius fasciatus* (o)\* *Valencia hispanica*\* *Valencia letourneuxi* (*Valencia hispanica*)

## PERCIFORMES

## Percidae

*Gymnocephalus baloni**Gymnocephalus schraetzer* (V)\* *Romanichthys valsanicola**Zingel* spp. ((o) except *Zingel asper* and *Zingel zingel* (V))

## Gobiidae

*Knipowitschia croatica* (o)*Knipowitschia (Padogobius) panizzae* (o)*Padogobius nigricans* (o)*Pomatoschistus canestrini* (o)

## SCORPAENIFORMES

## Cottidae

*Cottus gobio* (o) (except the Finnish populations)*Cottus petiti* (o)

## INVERTEBRATES

## ARTHROPODS

## CRUSTACEA

## Decapoda

*Austropotamobius pallipes* (V)\* *Austropotamobius torrentium* (V)

## Isopoda

\* *Armadillidium ghardalamensis*

## INSECTA

## Coleoptera

*Agathidium pulchellum* (o)*Bolbelasmus unicornis**Boros schneideri* (o)*Buprestis splendens*

*Carabus hampei*  
*Carabus hungaricus*  
\* *Carabus menetriesi pacholei*  
\* *Carabus olympiae*  
*Carabus variolosus*  
*Carabus zawadzskii*  
*Cerambyx cerdo*  
*Corticaria planula* (o)  
*Cucujus cinnaberinus*  
*Dorcadion fulvum cervae*  
*Duvalius gebhardti*  
*Duvalius hungaricus*  
*Dytiscus latissimus*  
*Graphoderus bilineatus*  
*Leptodirus hochenwarti*  
*Limoniscus violaceus* (o)  
*Lucanus cervus* (o)  
*Macroplea pubipennis* (o)  
*Mesosa myops* (o)  
*Morimus funereus* (o)  
\* *Osmoderma eremita*  
*Oxyporus mannerheimii* (o)  
*Pilemia tigrina*  
\* *Phryganophilus ruficollis*  
*Probaticus subrugosus*  
*Propomacrus cypriacus*  
\* *Pseudogaurotina excellens*  
*Pseudoseriscius cameroni*  
*Pytho kolwensis*  
*Rhysodes sulcatus* (o)  
\* *Rosalia alpina*

*Stephanopachys linearis* (o)  
*Stephanopachys substriatus* (o)  
*Xyletinus tremulicola* (o)  
Hemiptera  
*Aradus angularis* (o)  
Lepidoptera  
*Agriades glandon aquilo* (o)  
*Arytrura musculus*  
\* *Callimorpha (Euplagia, Panaxia) quadripunctaria* (o)  
*Catopta thrips*  
*Chondrosoma fiduciarium*  
*Clossiana improba* (o)  
*Coenonympha oedippus*  
*Colias myrmidone*  
*Cucullia mixta*  
*Dioszeghyana schmidtii*  
*Erannis ankeraria*  
*Erebia calcaria*  
*Erebia christi*  
*Erebia medusa polaris* (o)  
*Eriogaster catax*  
*Euphydryas (Eurodryas, Hypodryas) aurinia* (o)  
*Glyphipterix loricatella*  
*Gortyna borelii lunata*  
*Graellsia isabellae* (V)  
*Hesperia comma catena* (o)  
*Hypodryas maturna*  
*Leptidea morsei*  
*Lignyopectera fumidaria*  
*Lycaena dispar*  
*Lycaena helle*  
*Maculinea nausithous*

*Maculinea teleius*  
*Melanargia arge*  
\* *Nymphalis vaualbum*  
*Papilio hospiton*  
*Phyllometra culminaria*  
*Plebicula golgus*  
*Polymixis rufocincta isolata*  
*Polyommatus eroides*  
*Proterebia afra dalmata*  
*Pseudophilotes bavius*  
*Xestia borealis* (o)  
*Xestia brunneopicta* (o)  
\* *Xylomoia strix*  
Mantodea  
*Apteromantis aptera*  
Odonata  
*Coenagrion hylas* (o)  
*Coenagrion mercuriale* (o)  
*Coenagrion ornatum* (o)  
*Cordulegaster heros*  
*Cordulegaster trinacriae*  
*Gomphus graslinii*  
*Leucorrhinia pectoralis*  
*Lindenia tetraphylla*  
*Macromia splendens*  
*Ophiogomphus cecilia*  
*Oxygastra curtisii*  
Orthoptera  
*Baetica ustulata*  
*Brachytripes megacephalus*  
*Isophya costata*  
*Isophya harzi*  
*Isophya stysi*

*Myrmecophilus baronii*

*Odontopodisma rubripes*

*Paracaloptenus caloptenoides*

*Pholidoptera transsylvanica*

*Stenobothrus (Stenobothrodes) eurasius*

ARACHNIDA

Pseudoscorpiones

*Anthrenochernes stellae* (o)

MOLLUSCS

GASTROPODA

*Anisus vorticulus*

*Caseolus calculus*

*Caseolus commixta*

*Caseolus sphaerula*

*Chilostoma banaticum*

*Discula leacockiana*

*Discula tabellata*

*Discus guerinianus*

*Elona quimperiana*

*Geomalacus maculosus*

*Geomitra moniziana*

*Gibbula nivosa*

\* *Helicopsis striata austriaca* (o)

*Hygromia kovacsi*

*Idiomela (Helix) subplicata*

*Lampedusa imitatrix*

\* *Lampedusa melitensis*

*Leiostyla abbreviata*

*Leiostyla cassida*

*Leiostyla corneocostata*

*Leiostyla gibba*

*Leiostyla lamellosa*

\* *Paladilhia hungarica*

*Sadleriana pannonica*

*Theodoxus transversalis*

*Vertigo angustior* (o)

*Vertigo genesii* (o)

*Vertigo geyeri* (o)

*Vertigo moulinsiana* (o)

BIVALVIA

Unionoida

*Margaritifera durrovensis* (*Margaritifera margaritifera*) (V)

*Margaritifera margaritifera* (V)

*Unio crassus*

Dreissenidae

*Congeria kusceri*

(b) **PLANTS**

PTERIDOPHYTA

ASPENIACEAE

*Asplenium jahandiezii* (Litard.) Rouy

*Asplenium adulterinum* Milde

BLECHNACEAE

*Woodwardia radicans* (L.) Sm.

DICKSONIACEAE

*Culcita macrocarpa* C. Presl

DRYOPTERIDACEAE

*Diplazium sibiricum* (Turcz. ex Kunze) Kurata

\* *Dryopteris corleyi* Fraser-Jenk.

*Dryopteris fragans* (L.) Schott

HYMENOPHYLLACEAE

*Trichomanes speciosum* Willd.

ISOETACEAE

*Isoetes boryana* Durieu

*Isoetes malinverniana* Ces. & De Not.

MARSILEACEAE

*Marsilea batardae* Launert

*Marsilea quadrifolia* L.

*Marsilea strigosa* Willd.

OPHIOGLOSSACEAE



*Botrychium simplex* Hitchc.

*Ophioglossum polyphyllum* A. Braun  
GYMNOSPERMAE  
PINACEAE

\* *Abies nebrodensis* (Lojac.) Mattei  
ANGIOSPERMAE  
ALISMATACEAE

\* *Alisma wahlenbergii* (Holmberg) Juz.

*Caldesia parnassifolia* (L.) Parl.

*Luronium natans* (L.) Raf.  
AMARYLLIDACEAE

*Leucojum nicaeense* Ard.

*Narcissus asturiensis* (Jordan) Pugsley

*Narcissus calcicola* Mendonça

*Narcissus cyclamineus* DC.

*Narcissus fernandesii* G. Pedro

*Narcissus humilis* (Cav.) Traub

\* *Narcissus nevadensis* Pugsley

*Narcissus pseudonarcissus* L. subsp. *nobilis* (Haw.) A. Fernandes

*Narcissus scaberulus* Henriq.

*Narcissus triandrus* L. subsp. *capax* (Salisb.) D. A. Webb.

*Narcissus viridiflorus* Schousboe  
ASCLEPIADACEAE

*Vincetoxicum pannonicum* (Borhidi) Holub  
BORAGINACEAE

\* *Anchusa crispa* Viv.

*Echium russicum* J.F.Gemlin

\* *Lithodora nitida* (H. Ern) R. Fernandes

*Myosotis lusitanica* Schuster

*Myosotis rehsteineri* Wartm.

*Myosotis retusifolia* R. Afonso

*Omphalodes kuzinskyanae* Willk.

\* *Omphalodes littoralis* Lehm.

\* *Onosma tornensis* Javorka

*Solenanthus albanicus* (Degen & al.) Degen & Baldacci

\* *Symphytum cycladense* Pawl.

CAMPANULACEAE

*Adenophora lilifolia* (L.) Ledeb.

*Asyneuma giganteum* (Boiss.) Bornm.

\* *Campanula bohemica* Hruby

\* *Campanula gelida* Kovanda

*Campanula romanica* Săvul.

\* *Campanula sabatia* De Not.

\* *Campanula serrata* (Kit.) Hendrych

*Campanula zoysii* Wulfen

*Jasione crispa* (Pourret) Samp. subsp. *serpentinica* Pinto da Silva

*Jasione lusitanica* A. DC.

CARYOPHYLLACEAE

*Arenaria ciliata* L. subsp. *pseudofrigida* Ostenf. & O.C. Dahl

*Arenaria humifusa* Wahlenberg

\* *Arenaria nevadensis* Boiss. & Reuter

*Arenaria provincialis* Chater & Halliday

\* *Cerastium alsinifolium* Tausch *Cerastium dinaricum* G. Beck & Szysz.

*Dianthus arenarius* L. subsp. *arenarius*

\* *Dianthus arenarius* subsp. *bohemicus* (Novak) O. Schwarz

*Dianthus cintranus* Boiss. & Reuter subsp. *cintranus* Boiss. & Reuter

\* *Dianthus diutinus* Kit.

\* *Dianthus lumnitzeri* Wiesb.

*Dianthus marizii* (Samp.) Samp.

\* *Dianthus moravicus* Kovanda

\* *Dianthus nitidus* Waldst. et Kit.

*Dianthus plumarius* subsp. *regis-stephani* (Rapcs.) Baksay

*Dianthus rupicola* Biv.

\* *Gypsophila papillosa* P. Porta

*Herniaria algarvica* Chaudhri

\* *Herniaria latifolia* Lapeyr. subsp. *litardierei* Gamis

*Herniaria lusitanica* (Chaudhri) subsp. *berlengiana* Chaudhri

*Herniaria maritima* Link

\* *Minuartia smejkalii* Dvorakova

*Moehringia jankae* Griseb. ex Janka

*Moehringia lateriflora* (L.) Fenzl.

*Moehringia tommasinii* Marches.

*Moehringia villosa* (Wulfen) Fenzl

*Petrocoptis grandiflora* Rothm.

*Petrocoptis montsicciana* O. Bolos & Rivas Mart.

*Petrocoptis pseudoviscosa* Fernández Casas

*Silene furcata* Rafin. subsp. *angustiflora* (Rupr.) Walters

\* *Silene hicesiae* Brullo & Signorello

*Silene hifacensis* Rouy ex Willk.

\* *Silene holzmanii* Heldr. ex Boiss.

*Silene longicilia* (Brot.) Otth.

*Silene mariana* Pau

\* *Silene orphanidis* Boiss

\* *Silene rothmaleri* Pinto da Silva

\* *Silene velutina* Pourret ex Loisel.

#### CHENOPODIACEAE

\* *Bassia (Kochia) saxicola* (Guss.) A. J. Scott

\* *Cremnophyton lanfrancoi* Brullo et Pavone

\* *Salicornia veneta* Pignatti & Lausi

#### CISTACEAE

*Cistus palhinhae* Ingram

*Halimium verticillatum* (Brot.) Sennen

*Helianthemum alypoides* Losa & Rivas Goday

*Helianthemum caput-felis* Boiss.

\* *Tuberaria major* (Willk.) Pinto da Silva & Rozeira

#### COMPOSITAE

\* *Anthemis glaberrima* (Rech. f.) Greuter

*Artemisia campestris* L. subsp. *bottnica* A.N. Lundström ex Kindb.

\* *Artemisia granatensis* Boiss.

\* *Artemisia laciniata* Willd.

*Artemisia oelandica* (Besser) Komaror

\* *Artemisia pancicii* (Janka) Ronn.

\* *Aster pyrenaicus* Desf. ex DC

\* *Aster sorrentinii* (Tod) Lojac.

*Carlina onopordifolia* Besser

\* *Carduus myriacanthus* Salzm. ex DC.

\* *Centaurea alba* L. subsp. *heldreichii* (Halacsy) Dostal

\* *Centaurea alba* L. subsp. *princeps* (Boiss. & Heldr.) Gugler

\* *Centaurea akamantis* T. Georgiadis & G. Chatzikyriakou

\* *Centaurea attica* Nyman subsp. *megarensis* (Halacsy & Hayek) Dostal

\* *Centaurea balearica* J.D. Rodriguez

\* *Centaurea borjae* Valdes-Berm. & Rivas Goday

\* *Centaurea citricolor* Font Quer

*Centaurea corymbosa* Pourret

*Centaurea gadorensis* G. Blanca

\* *Centaurea horrida* Badaro

*Centaurea immanuelis-loewii* Degen

*Centaurea jankae* Brandza

\* *Centaurea kalambakensis* Freyn & Sint.

*Centaurea kartschiana* Scop.

\* *Centaurea lactiflora* Halacsy

*Centaurea micrantha* Hoffmanns. & Link subsp. *herminii* (Rouy) Dostál

\* *Centaurea niederi* Heldr.

\* *Centaurea peucedanifolia* Boiss. & Orph.

\* *Centaurea pinnata* Pau

*Centaurea pontica* Prodan & E.I. Nyárády

*Centaurea pulvinata* (G. Blanca) G. Blanca

*Centaurea rothmalerana* (Arènes) Dostál

*Centaurea vicentina* Mariz

*Cirsium brachycephalum* Juratzka

- \* *Crepis crocifolia* Boiss. & Heldr.
  - Crepis granatensis* (Willk.) B. Blanca & M. Cueto
  - Crepis pusilla* (Sommier) Merxmüller
  - Crepis tectorum* L. subsp. *nigrescens*
  - Erigeron frigidus* Boiss. ex DC.
  - \* *Helichrysum melitense* (Pignatti) Brullo et al
  - Hymenostemma pseudanthemis* (Kunze) Willd.
  - Hyoseris frutescens* Brullo et Pavone
  - \* *Jurinea cyanoides* (L.) Reichenb.
  - \* *Jurinea fontqueri* Cuatrec.
  - \* *Lamyropsis microcephala* (Moris) Dittrich & Greuter
  - Leontodon microcephalus* (Boiss. ex DC.) Boiss.
  - Leontodon boryi* Boiss.
  - \* *Leontodon siculus* (Guss.) Finch & Sell
  - Leuzea longifolia* Hoffmanns. & Link
  - Ligularia sibirica* (L.) Cass.
  - \* *Palaeocyanus crassifolius* (Bertoloni) Dostal
  - Santolina impressa* Hoffmanns. & Link
  - Santolina semidentata* Hoffmanns. & Link
  - Saussurea alpina* subsp. *esthonica* (Baer ex Rupr) Kupffer
  - \* *Senecio elodes* Boiss. ex DC.
  - Senecio jacobea* L. subsp. *gotlandicus* (Neuman) Sterner
  - Senecio nevadensis* Boiss. & Reuter
  - \* *Serratula lycopifolia* (Vill.) A. Kern
  - Tephroseris longifolia* (Jacq.) Griseb et Schenk subsp. *moravica*
- CONVOLVULACEAE
- \* *Convolvulus argyrothamnus* Greuter
  - \* *Convolvulus fernandesii* Pinto da Silva & Teles
- CRUCIFERAE
- Alyssum pyrenaicum* Lapeyr.
  - \* *Arabis kennedyae* Meikle
  - Arabis sadina* (Samp.) P. Cout.

*Arabis scopoliana* Boiss

\* *Biscutella neustriaca* Bonnet

*Biscutella vincentina* (Samp.) Rothm.

*Boleum asperum* (Pers.) Desvaux

*Brassica glabrescens* Poldini

*Brassica hilarionis* Post

*Brassica insularis* Moris

\* *Brassica macrocarpa* Guss.

*Braya linearis* Rouy

\* *Cochlearia polonica* E. Fröhlich

\* *Cochlearia tatrae* Borbas

\* *Coincya rupestris* Rouy

\* *Coronopus navasii* Pau

*Crambe tataria* Sebeok

\* *Degenia velebitica* (Degen) Hayek

*Diplotaxis ibicensis* (Pau) Gómez-Campo

\* *Diplotaxis siettiana* Maire

*Diplotaxis vicentina* (P. Cout.) Rothm.

*Draba cacuminum* Elis Ekman

*Draba cinerea* Adams

*Draba dorneri* Heuffel.

*Erucastrum palustre* (Pirona) Vis.

\* *Erysimum pieninicum* (Zapal.) Pawl.

\* *Iberis arbuscula* Runemark

*Iberis procumbens* Lange subsp. *microcarpa* Franco & Pinto da Silva

\* *Jonopsidium acaule* (Desf.) Reichenb.

*Jonopsidium savianum* (Caruel) Ball ex Arcang.

*Rhynchosinapis erucastrum* (L.) Dandy ex Clapham subsp. *cintrana* (Coutinho) Franco & P. Silva (*Coincya cintrana* (P. Cout.) Pinto da Silva)

*Sisymbrium cavanillesianum* Valdés & Castroviejo

*Sisymbrium supinum* L.

*Thlaspi jankae* A. Kern.

## CYPERACEAE

*Carex holostoma* Drejer\* *Carex panormitana* Guss.*Eleocharis carniolica* Koch

## DIOSCOREACEAE

\* *Borderea chouardii* (Gaussen) Heslot

## DROSERACEAE

*Aldrovanda vesiculosa* L.

## ELATINACEAE

*Elatine gussonei* (Sommier) Brullo et al

## ERICACEAE

*Rhododendron luteum* Sweet

## EUPHORBIACEAE

\* *Euphorbia margalidiana* Kuhbier & Lewejohann*Euphorbia transtagana* Boiss.

## GENTIANACEAE

\* *Centaurium rigualii* Esteve\* *Centaurium somedanum* Lainz*Gentiana ligustica* R. de Vilm. & Chopinet*Gentianella anglica* (Pugsley) E.F. Warburg\* *Gentianella bohemica* Skalicky

## GERANIACEAE

\* *Erodium astragaloides* Boiss. & Reuter*Erodium paularense* Fernández-González & Izco\* *Erodium rupicola* Boiss.

## GLOBULARIACEAE

\* *Globularia stygia* Orph. ex Boiss.

## GRAMINEAE

*Arctagrostis latifolia* (R. Br.) Griseb.*Arctophila fulva* (Trin.) N.J. Anderson*Avenula hackelii* (Henriq.) Holub*Bromus grossus* Desf. ex DC.*Calamagrostis chalybaea* (Laest.) Fries*Cinna latifolia* (Trev.) Griseb.*Coleanthus subtilis* (Tratt.) Seidl

*Festuca brigantina* (Markgr.-Dannenb.) Markgr.-Dannenb.

*Festuca duriotagana* Franco & R. Afonso

*Festuca elegans* Boiss.

*Festuca henriquesii* Hack.

*Festuca summilusitana* Franco & R. Afonso

*Gaudinia hispanica* Stace & Tutin

*Holcus setiglumis* Boiss. & Reuter subsp. *duriensis* Pinto da Silva

*Micropyropsis tuberosa* Romero - Zarco & Cabezudo

*Poa granitica* Br.-Bl. subsp. *disparilis* (E. I. Nyárády) E. I. Nyárády

\* *Poa riphaea* (Ascher et Graebner) Fritsch

*Pseudarrhenatherum pallens* (Link) J. Holub

*Puccinellia phryganodes* (Trin.) Scribner + Merr.

*Puccinellia pungens* (Pau) Paunero

\* *Stipa austroitalica* Martinovsky

\* *Stipa bavarica* Martinovsky & H. Scholz

*Stipa danubialis* Dihoru & Roman

\* *Stipa styriaca* Martinovsky

\* *Stipa veneta* Moraldo

\* *Stipa zaleskii* Wilensky

*Trisetum subalpestre* (Hartman) Neuman

GROSSULARIACEAE

\* *Ribes sardoum* Martelli

HIPPURIDACEAE

*Hippuris tetraphylla* L. Fil.

HYPERICACEAE

\* *Hypericum aciferum* (Greuter) N.K.B. Robson

IRIDACEAE

*Crocus cyprius* Boiss. et Kotschy

*Crocus hartmannianus* Holmboe

*Gladiolus palustris* Gaud.

*Iris aphylla* L. subsp. *hungarica* Hegi

*Iris humilis* Georgi subsp. *arenaria* (Waldst. et Kit.) A. et D.Löve

JUNCACEAE



*Juncus valvatus* Link

*Luzula arctica* Blytt

LABIATAE

*Dracocephalum austriacum* L.

\* *Micromeria taygetea* P.H. Davis

*Nepeta dirphya* (Boiss.) Heldr. ex Halacsy

\* *Nepeta sphaciotica* P.H. Davis

*Origanum dictamnus* L.

*Phlomis brevibracteata* Turrit

*Phlomis cypria* Post

*Salvia veneris* Hedge

*Sideritis cypria* Post

*Sideritis incana* subsp. *glauca* (Cav.) Malagarriga

*Sideritis javalambrensis* Pau

*Sideritis serrata* Cav. ex Lag.

*Teucrium lepicephalum* Pau

*Teucrium turredanum* Losa & Rivas Goday

\* *Thymus camphoratus* Hoffmanns. & Link

*Thymus carnosus* Boiss.

\* *Thymus lotocephalus* G. López & R. Morales (*Thymus cephalotos* L.)

LEGUMINOSAE

*Anthyllis hystrix* Cardona, Contandr. & E. Sierra

\* *Astragalus algarbiensis* Coss. ex Bunge

\* *Astragalus aquilanus* Anzalone

*Astragalus centralpinus* Braun-Blanquet

\* *Astragalus macrocarpus* DC. subsp. *lefkarensis*

\* *Astragalus maritimus* Moris

*Astragalus peterfii* Jáv.

*Astragalus tremolsianus* Pau

\* *Astragalus verrucosus* Moris

\* *Cytisus aeolicus* Guss. ex Lindl.

*Genista dorycnifolia* Font Quer

- Genista holopetala* (Fleischm. ex Koch) Baldacci  
*Melilotus segetalis* (Brot.) Ser. subsp. *fallax* Franco  
\* *Ononis hackelii* Lange  
*Trifolium saxatile* All.  
\* *Vicia bifoliolata* J.D. Rodríguez  
LENTIBULARIACEAE  
\* *Pinguicula crystallina* Sm.  
*Pinguicula nevadensis* (Lindb.) Casper  
LILIACEAE  
*Allium grosii* Font Quer  
\* *Androcymbium rechingeri* Greuter  
\* *Asphodelus bento-rainhae* P. Silva  
\* *Chionodoxa lochia* Meikle in Kew Bull.  
*Colchicum arenarium* Waldst. et Kit.  
*Hyacinthoides vicentina* (Hoffmans. & Link) Rothm.  
\* *Muscari gussonei* (Parl.) Tod.  
*Scilla litardierei* Breist.  
\* *Scilla morrisii* Meikle  
*Tulipa cypria* Stapf  
*Tulipa hungarica* Borbas  
LINACEAE  
\* *Linum dolomiticum* Borbas  
\* *Linum muelleri* Moris (*Linum maritimum muelleri*)  
LYTHRACEAE  
\* *Lythrum flexuosum* Lag.  
MALVACEAE  
*Kosteletzkya pentacarpos* (L.) Ledeb.  
NAJADACEAE  
*Najas flexilis* (Willd.) Rostk. & W.L. Schmidt  
*Najas tenuissima* (A. Braun) Magnus  
OLEACEAE  
*Syringa josikaea* Jacq. Fil. ex Reichenb.  
ORCHIDACEAE  
*Anacamptis urvilleana* Sommier et Caruana Gatto  
*Calypso bulbosa* L.

\* *Cephalanthera cucullata* Boiss. & Heldr.

*Cypripedium calceolus* L.

*Dactylorhiza kalopissii* E. Nelson

*Gymnigritella runei* Teppner & Klein

*Himantoglossum adriaticum* Baumann

*Himantoglossum caprinum* (Bieb.) V. Koch

*Liparis loeselii* (L.) Rich.

\* *Ophrys kotschyi* H.Fleischm. et Soo

\* *Ophrys lunulata* Parl.

*Ophrys melitensis* (Salkowski) J et P Devillers-Terschuren

*Platanthera obtusata* (Pursh) subsp. *oligantha* (Turez.) Hulten

OROBANCHACEAE

*Orobanche densiflora* Salzm. ex Reut.

PAEONIACEAE

*Paeonia cambessedesii* (Willk.) Willk.

*Paeonia clusii* F.C. Stern subsp. *rhodia* (Stearn) Tzanoudakis

*Paeonia officinalis* L. subsp. *banatica* (Rachel) Soo

*Paeonia parnassica* Tzanoudakis

PALMAE

*Phoenix theophrasti* Greuter

PAPAVERACEAE

*Corydalis gotlandica* Lidén

*Papaver laestadianum* (Nordh.) Nordh.

*Papaver radicum* Rottb. subsp. *hyperboreum* Nordh.

PLANTAGINACEAE

*Plantago algarbiensis* Sampaio (*Plantago bracteosa* (Willk.) G. Sampaio)

*Plantago almogravensis* Franco

PLUMBAGINACEAE

*Armeria berlengensis* Daveau

\* *Armeria helodes* Martini & Pold

*Armeria neglecta* Girard

*Armeria pseudarmeria* (Murray) Mansfeld

\* *Armeria rouyana* Daveau

*Armeria soleirolii* (Duby) Godron

*Armeria velutina* Welw. ex Boiss. & Reuter

*Limonium dodartii* (Girard) O. Kuntze subsp. *lusitanicum* (Daveau) Franco

\* *Limonium insulare* (Beg. & Landi) Arrig. & Diana

*Limonium lanceolatum* (Hoffmans. & Link) Franco

*Limonium multiflorum* Erben

\* *Limonium pseudolaetum* Arrig. & Diana

\* *Limonium strictissimum* (Salzmann) Arrig.

POLYGONACEAE

*Persicaria foliosa* (H. Lindb.) Kitag.

*Polygonum praelongum* Coode & Cullen

*Rumex rupestris* Le Gall

PRIMULACEAE

*Androsace mathildae* Levier

*Androsace pyrenaica* Lam.

\* *Cyclamen fatrense* Halda et Sojak

\* *Primula apennina* Widmer

*Primula carniolica* Jacq.

*Primula nutans* Georgi

*Primula palinuri* Petagna

*Primula scandinavica* Bruun

*Soldanella villosa* Darracq.

RANUNCULACEAE

\* *Aconitum corsicum* Gayer (*Aconitum napellus* subsp. *corsicum*)

*Aconitum firmum* (Reichenb.) Neilr subsp. *moravicum* Skalicky

*Adonis distorta* Ten.

*Aquilegia bertolonii* Schott

*Aquilegia kitaibelii* Schott

\* *Aquilegia pyrenaica* D.C. subsp. *cazorlensis* (Heywood) Galiano

\* *Consolida samia* P.H. Davis

\* *Delphinium caseyi* B.L. Burt

*Pulsatilla grandis* Wenderoth

*Pulsatilla patens* (L.) Miller

\* *Pulsatilla pratensis* (L.) Miller subsp. *hungarica* Soo

\* *Pulsatilla slavica* G. Reuss.

\* *Pulsatilla subslavica* Futak ex Goliasova

*Pulsatilla vulgaris* Hill. subsp. *gotlandica* (Johanss.) Zaemelis & Paegle

*Ranunculus kykkoensis* Meikle

*Ranunculus lapponicus* L.

\* *Ranunculus weyleri* Mares

RESEDACEAE

*Reseda decursiva* Forssk.

ROSACEAE

*Agrimonia pilosa* Ledebour

*Potentilla delphinensis* Gren. & Godron

*Potentilla emilii-popii* Nyárády

\* *Pyrus magyarica* Terpo

*Sorbus teodorii* Liljefors

RUBIACEAE

*Galium cracoviense* Ehrend.

\* *Galium litorale* Guss.

*Galium moldavicum* (Dobrescu) Franco

\* *Galium sudeticum* Tausch

\* *Galium viridiflorum* Boiss. & Reuter

SALICACEAE

*Salix salvifolia* Brot. subsp. *australis* Franco

SANTALACEAE

*Thesium ebracteatum* Hayne

SAXIFRAGACEAE

*Saxifraga berica* (Beguinot) D.A. Webb

*Saxifraga florulenta* Moretti

*Saxifraga hirculus* L.

*Saxifraga osloënsis* Knaben

*Saxifraga tombeanensis* Boiss. ex Engl.

SCROPHULARIACEAE

*Antirrhinum charidemi* Lange

*Chaenorrhinum serpyllifolium* (Lange) Lange subsp. *lusitanicum* R. Fernandes

\* *Euphrasia genargentea* (Feoli) Diana

*Euphrasia marchesettii* Wettst. ex Marches.

*Linaria algarviana* Chav.

*Linaria coutinhoi* Valdés

*Linaria loeselii* Schweigger

\* *Linaria ficalhoana* Rouy

*Linaria flava* (Poiret) Desf.

\* *Linaria hellenica* Turrill

*Linaria pseudolaxiflora* Lojacono

\* *Linaria ricardoii* Cout.

*Linaria tonzigii* Lona

\* *Linaria tursica* B. Valdés & Cabezudo

*Odontites granatensis* Boiss.

\* *Pedicularis sudetica* Willd.

*Rhinanthus oesilensis* (Ronniger & Saarsoo) Vassilcz

*Tozzia carpathica* Wol.

*Verbascum litigiosum* Samp.

*Veronica micrantha* Hoffmanns. & Link

\* *Veronica oetaea* L.-A. Gustavsson

SOLANACEAE

\* *Atropa baetica* Willk.

THYMELAEACEAE

\* *Daphne arbuscula* Celak

*Daphne petraea* Leybold

\* *Daphne rodriguezii* Texidor

ULMACEAE

*Zelkova abelicea* (Lam.) Boiss.

UMBELLIFERAE

\* *Angelica heterocarpa* Lloyd

*Angelica palustris* (Besser) Hoffm.

\* *Apium bermejoi* Llorens

*Apium repens* (Jacq.) Lag.

*Athamanta cortiana* Ferrarini

\* *Bupleurum capillare* Boiss. & Heldr.

\* *Bupleurum kakiskalae* Greuter

*Eryngium alpinum* L.

\* *Eryngium viviparum* Gay

\* *Ferula sadleriana* Lebed.

*Hladnikia pastinacifolia* Reichenb.

\* *Laserpitium longiradium* Boiss.

\* *Naufraga balearica* Constans & Cannon

\* *Oenanthe conioides* Lange

*Petagnia saniculifolia* Guss.

*Rouya polygama* (Desf.) Coincy

\* *Seseli intricatum* Boiss.

*Seseli leucospermum* Waldst. et Kit

*Thorella verticillatinundata* (Thore) Briq.

VALERIANACEAE

*Centranthus trinervis* (Viv.) Beguinot

VIOLACEAE

*Viola delphinantha* Boiss.

\* *Viola hispida* Lam.

*Viola jaubertiana* Mares & Vigineix

*Viola rupestris* F.W. Schmidt subsp. *relicta* Jalas

LOWER PLANTS

BRYOPHYTA

*Bruchia vogesiaca* Schwaegr. (o)

*Bryhnia novae-angliae* (Sull & Lesq.) Grout (o)

\* *Bryoerythrophyllum campylocarpum* (C. Müll.) Crum. (*Bryoerythrophyllum machadoanum* (Sergio) M.O. Hill) (o)

*Buxbaumia viridis* (Moug.) Moug. & Nestl. (o)

*Cephalozia macounii* (Aust.) Aust. (o)

*Cynodontium suecicum* (H. Arn. & C. Jens.) I. Hag. (o)

*Dichelyma capillaceum* (Dicks) Myr. (o)

*Dicranum viride* (Sull. & Lesq.) Lindb. (o)

*Distichophyllum carinatum* Dix. & Nich. (o)

*Drepanocladus (Hamatocaulis) vernicosus* (Mitt.) Warnst. (o)

- Encalypta mutica* (I. Hagen) (o)  
*Hamatocaulis lapponicus* (Norrl.) Hedenäs (o)  
*Herzogiella turfacea* (Lindb.) I. Wats. (o)  
*Hygrohypnum montanum* (Lindb.) Broth. (o)  
*Jungermannia handelii* (Schiffn.) Amak. (o)  
*Mannia triandra* (Scop.) Grolle (o)  
 \* *Marsupella profunda* Lindb. (o)  
*Meesia longiseta* Hedw. (o)  
*Nothothylas orbicularis* (Schwein.) Sull. (o)  
*Ochyraea tatrensis* Vana (o)  
*Orthothecium lapponicum* (Schimp.) C. Hartm. (o)  
*Orthotrichum rogeri* Brid. (o)  
*Petalophyllum ralfsii* (Wils.) Nees & Gott. (o)  
*Plagiomnium drummondii* (Bruch & Schimp.) T. Kop. (o)  
*Riccia breidleri* Jur. (o)  
*Riella helicophylla* (Bory & Mont.) Mont. (o)  
*Scapania massolongi* (K. Müll.) K. Müll. (o)  
*Sphagnum pylaisii* Brid. (o)  
*Tayloria rudolphiana* (Garov) B. & S. (o)  
*Tortella rigens* (N. Alberts) (o)  
 SPECIES FOR MACARONESIA  
 PTERIDOPHYTA  
 HYMENOPHYLLACEAE  
*Hymenophyllum maderensis* Gibby & Lovis  
 DRYOPTERIDACEAE  
 \* *Polystichum drepanum* (Sw.) C. Presl.  
 ISOETACEAE  
*Isoetes azorica* Durieu & Paiva ex Milde  
 MARSILEACEAE  
 \* *Marsilea azorica* Launert & Paiva  
 ANGIOSPERMAE  
 ASCLEPIADACEAE  
*Caralluma burchardii* N. E. Brown  
 \* *Ceropegia chrysantha* Svent.  
 BORAGINACEAE



*Echium candicans* L. fil.

\* *Echium gentianoides* Webb & Coincey

*Myosotis azorica* H.C. Watson

*Myosotis maritima* Hochst. in Seub.

CAMPANULACEAE

\* *Azorina vidalii* (H.C. Watson) Feer

*Musschia aurea* (L. f.) DC.

\* *Musschia wollastonii* Lowe

CAPRIFOLIACEAE

\* *Sambucus palmensis* Link

CARYOPHYLLACEAE

*Spergularia azorica* (Kindb.) Lebel

CELASTRACEAE

*Maytenus umbellata* (R. Br.) Mabb.

CHENOPODIACEAE

*Beta patula* Ait.

CISTACEAE

*Cistus chinamadensis* Banares & Romero

\* *Helianthemum bystropogophyllum* Svent.

COMPOSITAE

*Andryala crithmifolia* Ait.

\* *Argyranthemum lidii* Humphries

*Argyranthemum thalassophyllum* (Svent.) Hump.

*Argyranthemum winterii* (Svent.) Humphries

\* *Atractylis arbuscula* Svent. & Michaelis

*Atractylis preauxiana* Schultz.

*Calendula maderensis* DC.

*Cheirolophus duranii* (Burchard) Holub

*Cheirolophus ghomerytus* (Svent.) Holub

*Cheirolophus junonianus* (Svent.) Holub

*Cheirolophus massonianus* (Lowe) Hansen & Sund.

*Cirsium latifolium* Lowe

*Helichrysum gossypinum* Webb

*Helichrysum monogynum* Burt & Sund.

*Hypochoeris oligocephala* (Svent. & Bramw.) Lack

\* *Lactuca watsoniana* Trel.

\* *Onopordum nogalesii* Svent.

\* *Onopordum carduelinum* Bolle

\* *Pericallis hadrosoma* (Svent.) B. Nord.

*Phagnalon benettii* Lowe

*Stemmacantha cynaroides* (Chr. Son. in Buch) Ditt

*Sventenia bupleuroides* Font Quer

\* *Tanacetum ptarmiciflorum* Webb & Berth

CONVOLVULACEAE

\* *Convolvulus caput-medusae* Lowe

\* *Convolvulus lopez-socasii* Svent.

\* *Convolvulus massonii* A. Dietr.

CRASSULACEAE

*Aeonium gomeraense* Praeger

*Aeonium saundersii* Bolle

*Aichryson dumosum* (Lowe) Praeg.

*Monanthes wildpretii* Banares & Scholz

*Sedum brissemoretii* Raymond-Hamet

CRUCIFERAE

\* *Crambe arborea* Webb ex Christ

*Crambe laevigata* DC. ex Christ

\* *Crambe sventenii* R. Petters ex Bramwell & Sund.

\* *Parolinia schizogynoides* Svent.

*Sinapidendron rupestre* (Ait.) Lowe

CYPERACEAE

*Carex malato-belizii* Raymond

DIPSACACEAE

*Scabiosa nitens* Roemer & J.A. Schultes

ERICACEAE

*Erica scoparia* L. subsp. *azorica* (Hochst.) D.A. Webb

EUPHORBIACEAE

\* *Euphorbia handiensis* Burchard

*Euphorbia lambii* Svent.

*Euphorbia stygiana* H.C. Watson

GERANIACEAE

\* *Geranium maderense* P.F. Yeo

GRAMINEAE

*Deschampsia maderensis* (Haeck. & Born.) Buschm.

*Phalaris maderensis* (Menezes) Menezes

GLOBULARIACEAE

\* *Globularia ascanii* D. Bramwell & Kunkel

\* *Globularia sarcophylla* Svent.

LABIATAE

\* *Sideritis cystosiphon* Svent.

\* *Sideritis discolor* (Webb ex de Noe) Bolle

*Sideritis infernalis* Bolle

*Sideritis marmorea* Bolle

*Teucrium abutiloides* L'Hér.

*Teucrium betonicum* L'Hér.

LEGUMINOSAE

\* *Anagyris latifolia* Brouss. ex. Willd.

*Anthyllis lemanniana* Lowe

\* *Dorycnium spectabile* Webb & Berthel

\* *Lotus azoricus* P.W. Ball

*Lotus callis-viridis* D. Bramwell & D. H. Davis

\* *Lotus kunkelii* (E. Chueca) D. Bramwell & al.

\* *Teline rosmarinifolia* Webb & Berthel.

\* *Teline salsoloides* Arco & Acebes.

*Vicia dennesiana* H.C. Watson

LILIACEAE

\* *Androcymbium psammophilum* Svent.

*Scilla maderensis* Menezes

*Semele maderensis* Costa

LORANTHACEAE

*Arceuthobium azoricum* Wiens & Hawksw.

MYRICACEAE

\* *Myrica rivas-martinezii* Santos.

OLEACEAE

*Jasminum azoricum* L.

*Picconia azorica* (Tutin) Knobl.  
ORCHIDACEAE

*Goodyera macrophylla* Lowe  
PITTOSPORACEAE

\* *Pittosporum coriaceum* Dryand. ex. Ait.  
PLANTAGINACEAE

*Plantago malato-belizii* Lawalree  
PLUMBAGINACEAE

\* *Limonium arborescens* (Brouss.) Kuntze

*Limonium dendroides* Svent.

\* *Limonium spectabile* (Svent.) Kunkel & Sunding

\* *Limonium sventenii* Santos & Fernández Galván  
POLYGONACEAE

*Rumex azoricus* Rech. fil.  
RHAMNACEAE

*Frangula azorica* Tutin  
ROSACEAE

\* *Bencomia brachystachya* Svent.

*Bencomia sphaerocarpa* Svent.

\* *Chamaemeles coriacea* Lindl.

*Dendriopoterium pulidoi* Svent.

*Marcetella maderensis* (Born.) Svent.

*Prunus lusitanica* L. subsp. *azorica* (Mouillef.) Franco

*Sorbus maderensis* (Lowe) Dode  
SANTALACEAE

*Kunkeliella subsucculenta* Kammer  
SCROPHULARIACEAE

\* *Euphrasia azorica* H.C. Watson

*Euphrasia grandiflora* Hochst. in Seub.

\* *Isoplexis chalcantha* Svent. & O'Shanahan

*Isoplexis isabelliana* (Webb & Berthel.) Masferrer

*Odontites holliana* (Lowe) Benth.

*Sibthorpia peregrina* L.  
SOLANACEAE

\* *Solanum lidii* Sunding

UMBELLIFERAE

*Ammi trifoliatum* (H.C. Watson) Trelease

*Bupleurum handiense* (Bolle) Kunkel

*Chaerophyllum azoricum* Trelease

*Ferula latipinna* Santos

*Melanoselinum decipiens* (Schrader & Wendl.) Hoffm.

*Monizia edulis* Lowe

*Oenanthe divaricata* (R. Br.) Mabb.

*Sanicula azorica* Guthnick ex Seub.

VIOLACEAE

*Viola paradoxa* Lowe

LOWER PLANTS

BRYOPHYTA

\* *Echinodium spinosum* (Mitt.) Jur. (o)

\* *Thamnobryum fernandesii* Sergio (o).?;

(c) Annex IV is replaced by the following:

#### ANNEX IV

#### ANIMAL AND PLANT SPECIES OF COMMUNITY INTEREST IN NEED OF STRICT PROTECTION

The species listed in this Annex are indicated:

- by the name of species or subspecies, or
- by the body of species belonging to a higher taxon or to a designated part of that taxon.

The abbreviation “spp.” after the name of a family or genus designates all the species belonging to that family or genus.

(a) **ANIMALS**

VERTEBRATES

MAMMALS

INSECTIVORA

Erinaceidae

*Erinaceus algirus*

Soricidae

*Crocidura canariensis*

*Crocidura sicula*

Talpidae

*Galemys pyrenaicus*

MICROCHIROPTERA

All species

MEGACHIROPTERA

Pteropodidae

*Rousettus aegyptiacus*

RODENTIA

Gliridae

All species except *Glis glis* and *Eliomys quercinus*

Sciuridae

*Marmota marmota latirostris*

*Pteromys volans* (*Sciuropterus russicus*)

*Spermophilus citellus* (*Citellus citellus*)

*Spermophilus suslicus* (*Citellus suslicus*)

*Sciurus anomalus*

Castoridae

*Castor fiber* (except the Estonian, Latvian, Lithuanian, Polish, Finnish and Swedish populations)

Cricetidae

*Cricetus cricetus* (except the Hungarian populations)

*Mesocricetus newtoni*

Microtidae

*Dinaromys bogdanovi*

*Microtus cabrerae*

*Microtus oeconomus arenicola*

*Microtus oeconomus mehelyi*

*Microtus tatricus*

Zapodidae

*Sicista betulina*

*Sicista subtilis*

Hystriidae

*Hystrix cristata*

CARNIVORA

Canidae

*Alopex lagopus*

*Canis lupus* (except the Greek populations north of the 39th parallel; Estonian populations, Spanish populations north of the Duero; Bulgarian, Latvian, Lithuanian, Polish, Slovak populations and Finnish populations within the reindeer management

area as defined in paragraph 2 of the Finnish Act No 848/90 of 14 September 1990 on reindeer management)

Ursidae

*Ursus arctos*

Mustelidae

*Lutra lutra*

*Mustela eversmanii*

*Mustela lutreola*

*Vormela peregusna*

Felidae

*Felis silvestris*

*Lynx lynx* (except the Estonian population)

*Lynx pardinus*

Phocidae

*Monachus monachus*

*Phoca hispida saimensis*

ARTIODACTYLA

Cervidae

*Cervus elaphus corsicanus*

Bovidae

*Bison bonasus*

*Capra aegagrus* (natural populations)

*Capra pyrenaica pyrenaica*

*Ovis gmelini musimon* (*Ovis ammon musimon*) (natural populations – Corsica and Sardinia)

*Ovis orientalis ophion* (*Ovis gmelini ophion*)

*Rupicapra pyrenaica ornata* (*Rupicapra rupicapra ornata*)

*Rupicapra rupicapra balcanica*

*Rupicapra rupicapra tatica*

CETACEA

All species

REPTILES

TESTUDINATA

Testudinidae

*Testudo graeca*

*Testudo hermanni*

*Testudo marginata*

Cheloniidae

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*Status: This is the original version (as it was originally adopted).*

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*Caretta caretta*

*Chelonia mydas*

*Lepidochelys kempii*

*Eretmochelys imbricata*

Dermochelyidae

*Dermochelys coriacea*

Emydidae

*Emys orbicularis*

*Mauremys caspica*

*Mauremys leprosa*

SAURIA

Lacertidae

*Algyroides fitzingeri*

*Algyroides marchi*

*Algyroides moreoticus*

*Algyroides nigropunctatus*

*Dalmatolacerta oxycephala*

*Dinarolacerta mosorensis*

*Gallotia atlantica*

*Gallotia galloti*

*Gallotia galloti insulanagae*

*Gallotia simonyi*

*Gallotia stehlini*

*Lacerta agilis*

*Lacerta bedriagae*

*Lacerta bonnali (Lacerta monticola)*

*Lacerta monticola*

*Lacerta danfordi*

*Lacerta dugesi*

*Lacerta graeca*

*Lacerta horvathi*

*Lacerta schreiberi*

*Lacerta trilineata*



*Lacerta viridis*

*Lacerta vivipara pannonica*

*Ophisops elegans*

*Podarcis erhardii*

*Podarcis filfolensis*

*Podarcis hispanica atrata*

*Podarcis lilfordi*

*Podarcis melisellensis*

*Podarcis milensis*

*Podarcis muralis*

*Podarcis peloponnesiaca*

*Podarcis pityusensis*

*Podarcis sicula*

*Podarcis taurica*

*Podarcis tiliguerta*

*Podarcis wagleriana*

Scincidae

*Ablepharus kitaibelii*

*Chalcides bedriagai*

*Chalcides ocellatus*

*Chalcides sexlineatus*

*Chalcides simonyi (Chalcides occidentalis)*

*Chalcides viridianus*

*Ophiomorus punctatissimus*

Gekkonidae

*Cyrtopodion kotschy*

*Phyllodactylus europaeus*

*Tarentola angustimentalis*

*Tarentola boettgeri*

*Tarentola delalandii*

*Tarentola gomerensis*

Agamidae

*Stellio stellio*

Chamaeleontidae

*Chamaeleo chamaeleon*

Anguidae

*Ophisaurus apodus*

OPHIDIA

Colubridae

*Coluber caspius*

*Coluber cypriensis*

*Coluber hippocrepis*

*Coluber jugularis*

*Coluber laurenti*

*Coluber najadum*

*Coluber nummifer*

*Coluber viridiflavus*

*Coronella austriaca*

*Eirenis modesta*

*Elaphe longissima*

*Elaphe quatuorlineata*

*Elaphe situla*

*Natrix natrix cetti*

*Natrix natrix corsa*

*Natrix natrix cypriaca*

*Natrix tessellata*

*Telescopus falax*

Viperidae

*Vipera ammodytes*

*Macrovipera schweizeri* (*Vipera lebetina schweizeri*)

*Vipera seoanni* (except Spanish populations)

*Vipera ursinii*

*Vipera xanthina*

Boidae

*Eryx jaculus*

AMPHIBIANS

CAUDATA

Salamandridae

*Chioglossa lusitanica*

*Euproctus asper*

*Euproctus montanus*

*Euproctus platycephalus*

*Mertensiella luschani* (*Salamandra luschani*)

*Salamandra atra*

*Salamandra aurorae*

*Salamandra lanzai*

*Salamandrina terdigitata*

*Triturus carnifex* (*Triturus cristatus carnifex*)

*Triturus cristatus* (*Triturus cristatus cristatus*)

*Triturus italicus*

*Triturus karelinii* (*Triturus cristatus karelinii*)

*Triturus marmoratus*

*Triturus montandoni*

*Triturus vulgaris ampelensis*

Proteidae

*Proteus anguinus*

Plethodontidae

*Hydromantes* (*Speleomantes*) *ambrosii*

*Hydromantes* (*Speleomantes*) *flavus*

*Hydromantes* (*Speleomantes*) *genei*

*Hydromantes* (*Speleomantes*) *imperialis*

*Hydromantes* (*Speleomantes*) *strinatii* (*Hydromantes* (*Speleomantes*) *italicus*)

*Hydromantes* (*Speleomantes*) *supramontis*

ANURA

Discoglossidae

*Alytes cisternasii*

*Alytes muletensis*

*Alytes obstetricans*

*Bombina bombina*

*Bombina variegata*

*Discoglossus galganoi* (including *Discoglossus* “*jeanneae*”)

*Discoglossus montalentii*

*Discoglossus pictus*

*Discoglossus sardus*

Ranidae

*Rana arvalis*

*Rana dalmatina*

*Rana graeca*

*Rana iberica*

*Rana italica*

*Rana latastei*

*Rana lessonae*

Pelobatidae

*Pelobates cultripipes*

*Pelobates fuscus*

*Pelobates syriacus*

Bufo

*Bufo calamita*

*Bufo viridis*

Hylidae

*Hyla arborea*

*Hyla meridionalis*

*Hyla sarda*

FISH

ACIPENSERIFORMES

Acipenseridae

*Acipenser naccarii*

*Acipenser sturio*

SALMONIFORMES

Coregonidae

*Coregonus oxyrhynchus* (anadromous populations in certain sectors of the North Sea, except the Finnish populations)

CYPRINIFORMES

Cyprinidae

*Anaocypris hispanica*

*Phoxinus phoxinus*

ATHERINIFORMES

Cyprinodontidae

*Valencia hispanica*

PERCIFORMES

Percidae

*Gymnocephalus baloni*

*Romanichthys valsanicola*

*Zingel asper*

INVERTEBRATES

ARTHROPODS

CRUSTACEA

Isopoda

*Armadillidium ghardalamensis*

INSECTA

Coleoptera

*Bolbelasmus unicornis*

*Buprestis splendens*

*Carabus hampei*

*Carabus hungaricus*

*Carabus olympiae*

*Carabus variolosus*

*Carabus zawadzskii*

*Cerambyx cerdo*

*Cucujus cinnaberinus*

*Dorcadion fulvum cervae*

*Duvalius gebhardti*

*Duvalius hungaricus*

*Dytiscus latissimus*

*Graphoderus bilineatus*

*Leptodirus hochenwarti*

*Pilemia tigrina*

*Osmoderma eremita*

*Phryganophilus ruficollis*

*Probaticus subrugosus*

*Propomacrus cypriacus*

*Pseudogaurotina excellens*

*Pseudoseriscius cameroni*

*Pytho kolwensis*

*Rosalia alpina*

Lepidoptera

*Apatura metis*

*Arytrura musculus*

*Catopta thrips*

*Chondrosoma fiduciarium*

*Coenonympha hero*

*Coenonympha oedippus*

*Colias myrmidone*

*Cucullia mixta*

*Dioszeghyana schmidtii*

*Erannis ankeraria*

*Erebia calcaria*

*Erebia christi*

*Erebia sudetica*

*Eriogaster catax*

*Fabriciana elisa*

*Glyphipterix loricatella*

*Gortyna borelii lunata*

*Hypodryas maturna*

*Hyles hippophaes*

*Leptidea morsei*

*Lignyopectera fumidaria*

*Lopinga achine*

*Lycaena dispar*

*Lycaena helle*

*Maculinea arion*

*Maculinea nausithous*

*Maculinea teleius*

*Melanargia arge*

*Nymphalis vaualbum*

*Papilio alexanor*

*Papilio hospiton*

*Parnassius apollo*

*Parnassius mnemosyne*

*Phyllometra culminaria*

*Plebicula golgus*

*Polymixis rufocincta isolata*

*Polyommatus eroides*

*Proserpinus proserpina*

*Proterebia afra dalmata*

*Pseudophilotes bavius*

*Xylomoia strix*

*Zerynthia polyxena*

Mantodea

*Apteromantis aptera*

Odonata

*Aeshna viridis*

*Cordulegaster heros*

*Cordulegaster trinacriae*

*Gomphus graslinii*

*Leucorrhinia albifrons*

*Leucorrhinia caudalis*

*Leucorrhinia pectoralis*

*Lindenia tetraphylla*

*Macromia splendens*

*Ophiogomphus cecilia*

*Oxygastra curtisii*

*Stylurus flavipes*

*Sympecma braueri*

Orthoptera

*Baetica ustulata*

*Brachytrupes megacephalus*

*Isophya costata*

*Isophya harzi*

*Isophya stysi*

*Myrmecophilus baronii*

*Odontopodisma rubripes*

*Paracaloptenus caloptenoides*

*Pholidoptera transsylvanica*

*Saga pedo*

*Stenobothrus (Stenobothrodes) eurasius*

ARACHNIDA

Araneae

*Macrothele calpeiana*

MOLLUSCS

GASTROPODA

*Anisus vorticulus*

*Caseolus calculus*

*Caseolus commixta*

*Caseolus sphaerula*

*Chilostoma banaticum*

*Discula leacockiana*

*Discula tabellata*

*Discula testudinalis*

*Discula turricula*

*Discus defloratus*

*Discus guerinianus*

*Elona quimperiana*

*Geomalacus maculosus*

*Geomitra moniziana*

*Gibbula nivosa*

*Hygromia kovacsi*

*Idiomela (Helix) subplicata*

*Lampedusa imitatrix*

*Lampedusa melitensis*

*Leiostyla abbreviata*



*Leiostyla cassida*

*Leiostyla corneocostata*

*Leiostyla gibba*

*Leiostyla lamellosa*

*Paladilhia hungarica*

*Patella ferruginea*

*Sadleriana pannonica*

*Theodoxus prevostianus*

*Theodoxus transversalis*

BIVALVIA

Anisomyaria

*Lithophaga lithophaga*

*Pinna nobilis*

Unionoida

*Margaritifera auricularia*

*Unio crassus*

Dreissenidae

*Congeria kusceri*

ECHINODERMATA

Echinoidea

*Centrostephanus longispinus*

(b) **PLANTS**

Annex IV (b) contains all the plant species listed in Annex II (b)<sup>(5)</sup> plus those mentioned below:

PTERIDOPHYTA

ASPLENIACEAE

*Asplenium hemionitis* L.

ANGIOSPERMAE

AGAVACEAE

*Dracaena draco* (L.) L.

AMARYLLIDACEAE

*Narcissus longispathus* Pugsley

*Narcissus triandrus* L.

BERBERIDACEAE

*Berberis maderensis* Lowe

CAMPANULACEAE

*Campanula morettiana* Reichenb.

*Physoplexis comosa* (L.) Schur.

CARYOPHYLLACEAE

*Moehringia fontqueri* Pau

COMPOSITAE

*Argyranthemum pinnatifidum* (L.f.) Lowe subsp. *succulentum* (Lowe) C. J. Humphries

*Helichrysum sibthorpii* Rouy

*Picris willkommii* (Schultz Bip.) Nyman

*Santolina elegans* Boiss. ex DC.

*Senecio caespitosus* Brot.

*Senecio lagascanus* DC. subsp. *lusitanicus* (P. Cout.) Pinto da Silva

*Wagenitzia lancifolia* (Sieber ex Sprengel) Dostal

CRUCIFERAE

*Murbeckiella sousae* Rothm.

EUPHORBIACEAE

*Euphorbia nevadensis* Boiss. & Reuter

GESNERIACEAE

*Jankaea heldreichii* (Boiss.) Boiss.

*Ramonda serbica* Pancic

IRIDACEAE

*Crocus etruscus* Parl.

*Iris boissieri* Henriq.

*Iris marisca* Ricci & Colasante

LABIATAE

*Rosmarinus tomentosus* Huber-Morath & Maire

*Teucrium charidemi* Sandwith

*Thymus capitellatus* Hoffmanns. & Link

*Thymus villosus* L. subsp. *villosus* L.

LILIACEAE

*Androcymbium europaeum* (Lange) K. Richter

*Bellevalia hackelli* Freyn

*Colchicum corsicum* Baker

*Colchicum cousturieri* Greuter

*Fritillaria conica* Rix

*Fritillaria drenovskii* Degen & Stoy.

*Fritillaria gussichiae* (Degen & Doerfler) Rix

*Fritillaria obliqua* Ker-Gawl.

*Fritillaria rhodocanakis* Orph. ex Baker

*Ornithogalum reverchonii* Degen & Herv.-Bass.

*Scilla beirana* Samp.

*Scilla odorata* Link

ORCHIDACEAE

*Ophrys argolica* Fleischm.

*Orchis scopulorum* Simsmerh.

*Spiranthes aestivalis* (Poiret) L.C.M. Richard

PRIMULACEAE

*Androsace cylindrica* DC.

*Primula glaucescens* Moretti

*Primula spectabilis* Tratt.

RANUNCULACEAE

*Aquilegia alpina* L.

SAPOTACEAE

*Sideroxylon marmulano* Banks ex Lowe

SAXIFRAGACEAE

*Saxifraga cintrana* Kuzinsky ex Willk.

*Saxifraga portosanctana* Boiss.

*Saxifraga presolanensis* Engl.

*Saxifraga valdensis* DC.

*Saxifraga vayredana* Luizet

SCROPHULARIACEAE

*Antirrhinum lopesianum* Rothm.

*Lindernia procumbens* (Krocker) Philcox

SOLANACEAE

*Mandragora officinarum* L.

THYMELAEACEAE

*Thymelaea broterana* P. Cout.

UMBELLIFERAE

*Bunium brevifolium* Lowe

VIOLACEAE

*Viola athis* W. Becker

*Viola cazorlensis* Gandoger

Annex II to Directive 2009/147/EC is replaced by the following:

‘ANNEXPART AANSERIFORMESAnatidae

II

*Anser fabalis*

*Anser anser*

*Branta canadensis*

*Anas penelope*

*Anas strepera*

*Anas crecca*

*Anas platyrhynchos*

*Anas acuta*

*Anas querquedula*

*Anas clypeata*

*Aythya ferina*

*Aythya fuligula*

GALLIFORMESTetraonidae

*Lagopus lagopus scoticus et hibernicus*

*Lagopus mutus*

Phasianidae

*Alectoris graeca*

*Alectoris rufa*

*Perdix perdix*

*Phasianus colchicus*

GRUIFORMESRallidae

*Fulica atra*

CHARADRIIFORMESScolopacidae

*Lymnocyptes minimus*

*Gallinago gallinago*

*Scolopax rusticola*

COLUMBIFORMESColumbidae

*Columba livia*

*Columba palumbus*

PART B

ANSERIFORMES

Anatidae

*Cygnus olor*

*Anser brachyrhynchus*

*Anser albifrons*

*Branta bernicla*

*Netta rufina*

*Aythya marila*

*Somateria mollissima*

*Clangula hyemalis*

*Melanitta nigra*

*Melanitta fusca*

*Bucephala clangula*

*Mergus serrator*

*Mergus merganser*

GALLIFORMES

Meleagridae

*Meleagris gallopavo*

Tetraonidae

*Bonasa bonasia*

*Lagopus lagopus lagopus*

*Tetrao tetrix*

*Tetrao urogallus*

Phasianidae

*Francolinus francolinus*

*Alectoris barbara*

*Alectoris chukar*

*Coturnix coturnix*

GRUIFORMES

Rallidae

*Rallus aquaticus*

*Gallinula chloropus*

CHARADRIIFORMES

Haematopodidae

*Haematopus ostralegus*

Charadriidae

*Pluvialis apricaria*

*Pluvialis squatarola*

*Vanellus vanellus*

Scolopacidae

*Calidris canutus*

*Philomachus pugnax*

*Limosa limosa*

*Limosa lapponica*

*Numenius phaeopus*

*Numenius arquata*

*Tringa erythropus*

*Tringa totanus*

*Tringa nebularia*

Laridae

*Larus ridibundus*

*Larus canus*

*Larus fuscus*

*Larus argentatus*

*Larus cachinnans*

*Larus marinus*

COLUMBIFORMES

Columbidae

*Columba oenas*

*Streptopelia decaocto*

*Streptopelia turtur*

PASSERIFORMES

Alaudidae

*Alauda arvensis*

Muscicapidae

*Turdus merula*

*Turdus pilaris*

*Turdus philomelos*

*Turdus iliacus*

*Turdus viscivorus*

Sturnidae

*Sturnus vulgaris*



Status: This is the original version (as it was originally adopted).

<i>Tetrao- urogallus</i>		+					+		+		+						+		+			+	+	+	
<i>Francolinus francolinus</i>																									
<i>Alectoris barbara</i>							+				+														
<i>Alectoris chukar</i>							+				+														
<i>Coturnix coturnix</i>							+	+	+	+	+	+						+	+			+	+		
<i>Meleagris gallopavo</i>		+																	+						
<i>Rallus aquaticus</i>							+				+														
<i>Gallinula chloropus</i>							+				+											+	+		+
<i>Haematopus- ostralegus</i>							+																		
<i>Pluvialis apricaria</i>	+						+	+														+	+		+
<i>Pluvialis squatarola</i>	+						+																		+
<i>Vanellus vanellus</i>	+						+	+	+	+												+			
<i>Calidris canutus</i>	+						+																		
<i>Philomachus pugnax</i>							+				+														
<i>Limosa limosa</i>	+						+																		
<i>Limosa lapponica</i>	+						+																		+
<i>Numenius phaeopus</i>	+						+																		+
<i>Numenius arquata</i>	+						+																		+
<i>Tringa erythropus</i>	+						+																		
<i>Tringa totanus</i>	+						+				+														+
<i>Tringa nebularia</i>	+						+																		
<i>Larus ridibundus</i>	+	+	+				+																		+

AT = Österreich, BE = Belgique/België, BG = България, CY = Κύπρος, CZ = Česká republika, DE = Deutschland, DK = Danmark, EE = Eesti, ES = España, FI = Suomi/Finland, FR = France, EL = Ελλάδα, HR = Hrvatska, HU = Magyarország, IE = Ireland, IT = Italia, LT = Lietuva, LU = Luxembourg, LV = Latvija, MT = Malta, NL = Nederland, PL = Polska, PT = Portugal, RO = România, SE = Sverige, SI = Slovenija, SK = Slovensko, UK = United Kingdom

+ = Member States which under Article 7(3) may authorise hunting of the species listed. ?





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*Status: This is the original version (as it was originally adopted).*

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- (1) Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora ([OJ L 206, 22.7.1992, p. 7](#)).
- (2) Directive 2001/81/EC of the European Parliament and of the Council of 23 October 2001 on national emission ceilings for certain atmospheric pollutants ([OJ L 309, 27.11.2001, p. 22](#)).
- (3) Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds ([OJ L 20, 26.1.2010, p. 7](#)).
- (4) (+) Interpretation Manual of European Union Habitats, version EUR 15/2, adopted by the Habitats Committee on 4 October 1999 and Amendments to the “Interpretation Manual of European Union Habitats” with a view to EU enlargement (Hab. 01/11b-rev. 1), adopted by the Habitats Committee on 24 April 2002 after written consultation, European Commission, Directorate General for Environment;
- (5) Except bryophytes in Annex II (b).