

Council Directive 97/62/EC of 27 October 1997 adapting to technical and scientific progress Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora
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THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community,

Having regard to Directive 92/43/EEC (1) and in particular the first paragraph of Article 19 thereof,

Having regard to the proposal from the Commission,

Whereas certain natural habitat types and species in Annexes I and II to Directive 92/43/EEC should be adapted to technical and scientific progress;

Whereas the Interpretation Manual of European Union Habitats (EUR 15 version of April 1996) includes the new Natura 2000 codes which identify each natural habitat type; whereas the reference to the Corine code in Annex I to Directive 92/43/EEC should be replaced by a reference to the Natura 2000 code,

HAS ADOPTED THIS DIRECTIVE:

Article 1

Annexes I and II to Directive 92/43/EEC shall be replaced by the text in the Annex to this Directive.

Article 2

Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive before 31 December 1997. They shall forthwith inform the Commission thereof.

When Member States adopt these measures, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official publication. The methods of making such reference shall be laid down by Member States.

Article 3

This Directive shall enter into force on the 20th day following that of its publication in the Official Journal of the European Communities.

Article 4

This Directive is addressed to the Member States.

Done at Luxembourg, 27 October 1997.

For the Council

The President

R. GOEBBELS

(1) OJ L 206, 22. 7. 1992, p. 7. Directive as amended by the 1994 Act of Accession.

ANNEX

'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 Habitats" as approved by the committee set up in Article 20 ("Habitats Committee") and published by the European Commission (1).

The code corresponds to the Natura 2000 code.

The sign "*" indicates priority habitat types.

1. COASTAL AND HALOPHYTIC HABITATS

TABLE MISSING

2. COASTAL SAND DUNES AND INLAND DUNES

TABLE MISSING

3. FRESHWATER HABITATS

TABLE MISSING

4. TEMPERATE HEATH AND SCRUB

TABLE MISSING

5. SCLEROPHYLLOUS SCRUB (MATORRAL)

TABLE MISSING

6. NATURAL AND SEMI-NATURAL GRASSLAND FORMATIONS

TABLE MISSING

7. RAISED BOGS AND MIRES AND FENS

TABLE MISSING

8. ROCKY HABITATS AND CAVES

TABLE MISSING

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

TABLE MISSING

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 schreibersi

Myotis bechsteini

Myotis blythii

Myotis capaccinii

Myotis dasycneme

Myotis emarginatus

Myotis myotis

RODENTIA

Sciuridae

* *Pteromys volans* (*Sciuropterus russicus*)

Spermophilus citellus (*Citellus citellus*)

Castoridae

Castor fiber (except the Finnish and Swedish populations)

Microtidae

Microtus cabrerai

* *Microtus oeconomus arenicola*

CARNIVORA

Canidae

* *Alopex lagopus*

* *Canis lupus* (Spanish populations: only those south of the Duero; Greek populations: only south of the 39th parallel; Finnish populations excepted)

Ursidae

* *Ursus arctos* (except the Finnish and Swedish populations)

Mustelidae

* *Gulo gulo*

Lutra lutra

Mustela lutreola

Felidae

Lynx lynx (except the Finnish populations)

* *Lynx pardinus*

Phocidae

Halichoerus grypus (V)

* *Monachus monachus*

Phoca hispida bottnica (o)

* *Phoca hispida saimensis*

Phoca vitulina (V)

ARTIODACTYLA

Cervidae

* *Cervus elaphus corsicanus*

Rangifer tarandus fennicus (o)

Bovidae

Capra aegagrus (natural populations)

* *Capra pyrenaica pyrenaica*

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

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

Rupicapra rupicapra balcanica

CETACEA

Phocoena phocoena

Tursiops truncatus

REPTILES

CHELONIA (TESTUDINES)

Testudinidae

Testudo graeca

Testudo hermanni

Testudo marginata

Cheloniidae

* *Caretta caretta*

Emydidae

Emys orbicularis

Mauremys caspica

Mauremys leprosa

SAURIA

Lacertidae

Gallotia galloti insulanagae

* *Gallotia simonyi*

Lacerta bonnali (Lacerta monticola)
Lacerta monticola
Lacerta schreiberi
Podarcis lilfordi
Podarcis pityusensis
Scincidae
Chalcides somonyi (Chalcides occidentalis)
Gekkonidae
Phyllodactylus europaeus
OPHIDIA (SERPENTES)
Colubridae
Elaphe quatuorlineata
Elaphe situla
Viperidae
* Macrovipera schweizeri (Vipera lebetina schweizeri)
Vipera ursinii
AMPHIBIANS
CAUDATA
Salamandridae
Chioglossa lusitanica
Mertensiella luschani (Salamandra luschani)
* 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)
Proteidae
Proteus anguinus
Plethodontidae
Hydromantes (Speleomantes) ambrosii
Hydromantes (Speleomantes) flavus
Hydromantes (Speleomantes) genei
Hydromantes (Speleomantes) imperialis
Hydromantes (Speleomantes) strinatii
Hydromantes (Speleomantes) supramontes
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 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)

Coregonidae

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

CYPRINIFORMES

Cyprinidae

Alburnus albidus (o) (*Alburnus vulturius*)

Anaecypris hispanica

Aspius aspius (o) (except the Finnish populations)

Barbus comiza (V)

Barbus meridionalis (V)

Barbus plebejus (V)

Chondrostoma genei (o)

Chondrostoma lusitanicum (o)

Chondrostoma polylepis (o) (including *C. willkommi*)

Chalcalburnus chalcoides (o)

Chondrostoma soetta (o)

Chondrostoma toxostoma (o)

Gobio albipinnatus (o)

Gobio uranoscopus (o)

Iberocypris palaciosi (o)

* *Ladigesocypris ghigii* (o)

Leuciscus lucumonis (o)

Leuciscus souffia (o)

Phoxinellus spp. (o)

Rhodeus sericeus amarus (o)

Rutilus alburnoides (o)

Rutilus arcasii (o)

Rutilus frisii meidingeri (o)

Rutilus lemmingii (o)

Rutilus macrolepidotus (o)

Rutilus pigus (o)

Rutilus rubilio (o)

Scardinius graecus (o)

Cobitidae

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 schraetzer (V)
Zingel spp. [(o) except Zingel asper and Zingel zingel (V)]
Gobiidae
Knipowitschia (Padogobius) panizzae (o)
Padogobius nigricans (o)
Pomatoschistus canestrini (o)
SCORPANIFORMES
Cottidae
Cottus gobio (o) (except the Finnish populations)
Cottus petiti (o)
INVERTEBRATES
ARTHROPODS
CRUSTACEA
Decapoda
Austropotamobius pallipes (V)
INSECTA
Coleoptera
Agathidium pulchellum (o)
Boros schneideri (o)
Buprestis splendens
* Carabus menetriesi pacholei
* Carabus olympiae
Cerambyx cerdo
Corticaria planula (o)
Cucujus cinnaberinus
Dytiscus latissimus
Graphoderus bilineatus
Limoniscus violaceus (o)
Lucanus cervus (o)
Macropsea pubipennis (o)
Mesosa myops (o)
Morimus funereus (o)
* Osmoderma eremita
Oxyporus mannerheimii (o)
Pytho kolwensis (o)
* Rosalia alpina
Stephanopachys linearis (o)
Stephanopachys substriatus (o)
Xyletinus tremulicola (o)
Hemiptera
Aradus angularis (o)
Lepidoptera
Agriades glandon aquilo (o)
* Callimorpha (Euplagia, Panaxia) quadripunctaria (o)
Clossiana improba (o)
Coenonympha oedippus
Erebia calcaria
Erebia christi
Erebia medusa polaris (o)
Eriogaster catax

Euphydryas (Eurodryas, Hypodryas) aurinia (o)
Graellsia isabellae (V)
Hesperia comma catena (o)
Hypodryas maturna
Lycaena dispar
Maculinea nausithous
Maculinea teleius
Melanargia arge
Papilio hospiton
Plebicula golgus
Xestia borealis (o)
Xestia brunneopicta (o)
Mantodea
Apteromantis aptera
Odonata
Coenagrion hylas (o)
Coenagrion mercuriale (o)
Cordulegaster trinacriae
Gomphus graslinii
Leucorrhina pectoralis
Lindenia tetraphylla
Macromia splendens
Ophiogomphus cecilia
Oxygastra curtisii
Orthoptera
Baetica ustulata
ARACHNIDA
Pseudoscorpiones
Anthrenochernes stellae (o)
MOLLUSCS
GASTROPODA
Caseolus calculus
Caseolus commixta
Caseolus sphaerula
Discula leacockiana
Discula tabellata
Discus guerinianus
Elona quimperiana
Geomalacus maculosus
Geomitra moniziana
* Helicopsis striata austriaca (o)
Idiomela (Helix) subplicata
Leiostyla abbreviata
Leiostyla cassida
Leiostyla corneocostata
Leiostyla gibba
Leiostyla lamellosa
Vertigo angustior (o)
Vertigo genesii (o)
Vertigo geyeri (o)
Vertigo moulinsiana (o)
BIVALVIA
Unionoida
Margaritifera durrovensis (Margaritifera margaritifera) (V)
Margaritifera margaritifera (V)
Unio crassus

(b) PLANTS

PTERIDOPHYTA

ASPLENIACEAE

Asplenium jahandiezii (Litard.) Rouy

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

BORAGINACEAE

* *Anchusa crispa* Viv.

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

Myosotis lusitanica Schuster

Myosotis rehsteineri Wartm.

Myosotis retusifolia R. Afonso

Omphalodes kuzinskyanae Willk.

* *Omphalodes littoralis* Lehm.

Solenanthus albanicus (Degen & al.) Degen & Baldacci

* *Symphytum cycladense* Pawl.

CAMPANULACEAE

Asyneuma giganteum (Boiss.) Bornm.

* *Campanula sabatia* De Not.

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

Jasione lusitanica A. DC.

CARYOPHYLLACEAE

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

Arenaria humifusa Wahlenberg

* *Arenaria nevadensis* Boiss. & Reuter

Arenaria provincialis Chater & Halliday

Dianthus arenarius L. subsp. *arenarius*

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

Dianthus marizii (Samp.) Samp.

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

Moehringia lateriflora (L.) Fenzl.

Moehringia tommasinii Marches.

Petrocoptis grandiflora Rothm.

Petrocoptis montsicciana O. Bolos & Rivas Mart.

Petrocoptis pseudoviscosa Fernandez Casas

Silene furcata Rafin. ssp. *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

* *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.

* *Carduus myriacanthus* Salzm. ex DC.

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

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

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

* *Centaurea balearica* J. D. Rodriguez

* *Centaurea borjajae* Valdes-Berm. & Rivas Goday

* *Centaurea citricolor* Font Quer

Centaurea corymbosa Pourret
Centaurea gadorensis G. Blanca
 * *Centaurea horrida* Badaro
 * *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 pulvinata (G. Blanca) G. Blanca
Centaurea rothmalerana (Arènes) Dostál
Centaurea vicentina Mariz
 * *Crepis crocifolia* Boiss. & Heldr.
Crepis granatensis (Willk.) B. Blanca & M. Cueto
Crepis tectorum L. subsp. *nigrescens*
Erigeron frigidus Boiss. ex DC.
Hymenostemma pseudanthemis (Kunze) Willd.
 * *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.
Santolina impressa Hoffmanns. & Link
Santolina semidentata Hoffmanns. & Link
 * *Senecio elodes* Boiss. ex DC.
Senecio jacobea L. subsp. *gotlandicus* (Neuman) Sterner
Senecio nevadensis Boiss. & Reuter
 CONVULVULACEAE
 * *Convolvulus argyrothamnus* Greuter
 * *Gonvolvulus fernandesii* Pinto da Silva & Teles
 CRUCIFERAE
Alyssum pyrenaicum Lapeyr.
Arabis sadina (Samp.) P. Cout.
 * *Biscutella neustriaca* Bonnet
Biscutella vincentina (Samp.) Rothm.
Boleum asperum (Pers.) Desvaux
Brassica glabrescens Poldini
Brassica insularis Moris
 * *Brassica macrocarpa* Guss.
Braya linearis Rouy
 * *Coincya rupestris* Rouy
 * *Coronopus navasii* Pau
Diplotaxis ibicensis (Paul) Gomez-Campo
 * *Diplotaxis siettiana* Maire
Diplotaxis vicentina (P. Cout.) Rothm.
Draba cacuminum Elis Ekman
Draba cinerea Adams
Erucastrum palustre (Pirona) Vis.
 * *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 Valdes & Castroviejo
Sisymbrium supinum L.
CYPERACEAE
Carex holostoma Drejer
* *Carex panormitana* Guss.
Eleocharis carniolica Koch
DIOSCOREACEAE
* *Borderea chouardii* (Gaussen) Heslot
DROSERACEAE
Aldrovanda vesiculosa L.
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
GERANIACEAE
* *Erodium astragaloides* Boiss. & Reuter
Erodium paularense Fernandez-Gonzalez & 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 summilusitanica Franco & R. Afonso
Gaudinia hispanica Stace & Tutin
Holcus setiglumis Boiss. & Reuter subsp. *duriensis* Pinto da Silva
Micropyropsis tuberosa Romero - Zarco & Cabezudo
Pseudarrhenatherum pallens (Link) J. Holub
Puccinellia phryganodes (Trin.) Scribner + Merr.
Puccinellia pungens (Pau) Paunero
* *Stipa austroitalica* Martinovsky
* *Stipa bavarica* Martinovsky & H. Scholz
* *Stipa styriaca* Martinovsky
* *Stipa veneta* Moraldo
Trisetum subalpestre (Hartman) Neuman
GROSSULARIACEAE
* *Ribes sardoum* Martelli
HIPURIDACEAE
Hippuris tetraphylla L. Fil.
HYPERICACEAE
* *Hypericum aciferum* (Greuter) N.K.B. Robson

JUNCACEAE

Juncus valvatus Link

Luzula arctica Blytt

LABIATAE

Dracocephalum austriacum L.

* *Micromeria taygetea* P. H. Davis

Nepeta dirphyia (Boiss.) Heldr. ex Halacsy

* *Nepeta sphaciotica* P. H. Davis

Origanum dictamnus L.

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 maritimus* Moris

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. Rodriguez

LENTIBULARIACEAE

Pinguicula nevadensis (Lindb.) Casper

LILIACEAE

Allium grosii Font Quer

* *Androcymbium rechingeri* Greuter

* *Asphodelus bento-rainhae* P. Silva

Hyacinthoides vicentina (Hoffmans. & Link) Rothm.

* *Muscari gussonei* (Parl.) Tod.

LINACEAE

* *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

ORCHIDACEAE

Calypso bulbosa L.

* *Cephalanthera cucullata* Boiss. & Heldr.

Cypripedium calceolus L.

Gymnigritella runei Teppner & Klein

Liparis loeselii (L.) Rich.

* *Ophrys lunulata* Parl.

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

PAEONIACEAE

Paeonia cambessedesii (Willk.) Willk.

Paeonia parnassica Tzanoudakis

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

* *Primula apennina* Widmer

Primula nutans Georgi

Primula palinuri Petagna

Primula scandinavica Bruun

Soldanella villosa Darracq.

RANUNCULACEAE

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

Adonis distorta Ten.

Aquilegia bertolonii Schott

Aquilegia kitaibelii Schott

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

* *Consolida samia* P.H. Davis

Pulsatilla patens (L.) Miller

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

Ranunculus lapponicus L.

* *Ranunculus weyleri* Mares

RESEDACEAE

* *Reseda decursiva* Forssk.

ROSACEAE

Agrimonia pilosa Ledebour

Potentilla delphinensis Gren. & Godron

Sorbus teodori Liljefors

RUBIACEAE

* *Galium litorale* Guss.

* *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 ficvalhoana* Rouy

Linaria flava (Poiret) Desf.

* *Linaria hellenica* Turrill

* *Linaria ricardoi* Cout.

* *Linaria tursica* B. Valdes & Cabezudo

Linaria tonzigii Lona

Odontites granatensis Boiss.

Verbascum litigiosum Samp.

Veronica micrantha Hoffmanns. & Link

* *Veronica oetaea* L.-A. Gustavsson

SOLANACEAE

* *Atropa baetica* Willk.

THYMELAEACEAE

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

* *Laserpitium longiradium* Boiss.

* *Naufraga balearica* Constans & Cannon

* *Oenanthe conioides* Lange

Petagnia saniculifolia Guss.

Rouya polygama (Desf.) Coincy

* *Seseli intricatum* Boiss.

Thorella verticillatinundata (Thore) Briq.

VALERIANACEAE

Centranthus trinervis (Viv.) Beguinot

VIOLACEAE

* *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)

Orthothecium lapponicum (Schimp.) C. Hartm. (o)

Orthotrichum rogeri Brid. (o)

Petalophyllum ralfsii (Wils.) Nees & Gott. (o)

Plagiomnium drummondii (Bruch & Schimp.) T. Kop. (o)

Riccia breidlerii 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 & Coincy

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 lemmaniana 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 & Fernandez Galvan

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)

(1) "Interpretation manual of European Union habitats, version EUR 15" adopted by the Habitats Committee on 25 April 1996, European Commission, DG XI.