

# COMMISSION OF THE EUROPEAN COMMUNITIES

COM(90) 59 final

Brussels, 30 March 1990

SUPPLEMENTARY ANNEXES TO THE

Proposal for a

COUNCIL DIRECTIVE

on the protection of natural and semi-natural habitats and of  
wild fauna and flora

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(presented by the Commission pursuant to the third paragraph  
of Article 149 of the EEC Treaty)

EXPLANATORY MEMORANDUM

1. On the 26 July 1988, the Commission adopted a draft directive of the Council concerning the protection of natural and semi-natural habitats and of wild fauna and flora. (Official Journal C 247 of 21 September 1988). This draft included 3 annexes as the Commission estimated it preferable that the 8 other annexes mentioned in the body of the proposal be drawn up following adoption of the draft directive in accordance with an evolutive procedure and in close cooperation with the Member States.
2. The "Environment" Council expressed on two occasions (respectively 24 November 1988 and 28 November 1989) its wish to see a complete set of annexes incorporated into the proposal. It is to be noted that the first of these Councils explicitly requested that the annexes concerning species and habitat types be kept brief.
3. In October 1989, the competent Committee of the European Parliament and the competent Section of the European and Social Committee made it a precondition for an opinion that the Commission's proposal be completed so as to include the 8 missing annexes.
4. The attached modified proposal is therefore aimed at completing the annexes to the Commission's initial proposal as adopted on 26 July 1988. Annex I (Animals and plants whose habitats are threatened in the Community), II (Species of animals and plants threatened in the Community), III (Animals and Plants whose exploitation should be subject to a management plan) and IV (Natural and semi-natural habitats threatened in the Community) have been drawn up with the aim of keeping them as brief as scientific considerations would allow. The four other annexes are of a technical nature.

ANNEX I / ANNEXE I

Animal and plant species whose habitats are threatened  
in the Community.

Espèces animales et végétales dont les habitats sont  
menacés dans la Communauté.

a) ANIMALS / ANIMAUX

VERTEBRATES / VERTEBRES

MAMMALS/MAMMIFERES

**INSECTIVORA**

- Talpidae
  - Galemys pyrenaicus
- Soricidae
  - Suncus etruscus

**CHIROPTERA**

- Rhinolophidae
  - Rhinolophus blasii
  - Rhinolophus euryale
  - Rhinolophus ferrumequinum
  - Rhinolophus hipposideros
  - Rhinolophus mehelyi
- Vespertilionidae
  - Barbastella barbastellus
  - Miniopterus schreibersi
  - Myotis bechsteinii
  - Myotis blythi
  - Myotis capaccinii
  - Myotis dasycneme
  - Myotis emarginatus
  - Myotis myotis

**RODENTIA**

- Sciuridae
  - Spermophilus citellus
- Castoridae
  - Castor fiber
- Microtidae
  - Microtus cabreræ
  - Microtus oeconomus arenicola

**CARNIVORA**

- Canidae
  - Canis lupus
- Ursidae
  - Ursus arctos
- Mustelidae
  - Lutra lutra

Mustela lutreola  
Mustela nivalis boccamela  
Felidae  
Lynx lynx  
Lynx pardina  
Phocidae  
Monacus monacus

**ARTIODACTYLA**

Cervidae  
Cervus elaphus corsicanus  
Bovidae  
Capra pyrenaica pyrenaica  
Rupicapra rupicapra ornata  
Rupicapra rupicapra balcanica  
Ovis ammon musimon  
(Natural Populations - Corsica and Sardinia  
Populations naturelles - Corse et Sardaigne)  
Capra aegagrus

**CETACEA**

Tursiop truncatus  
Phocoena phocoena

**REPTILES**

**TESTUDINES**

Testudinidae  
Testudo hermanni  
Testudo graeca  
Testudo marginata  
Cheloniidae  
Caretta caretta

**SAURIA**

Lacertidae  
Lacerta monticola  
Gallotia gallotia insulanagae  
Gallotia simonyi  
Podarcis lilfordi  
Podarcis pityusensis  
Scincidae  
Chalcides occidentalis  
Geckonidae  
Phyllodactylus europaeus

**OPHIDIA**

Colubridae  
Elaphe quatuorlineata  
Elaphe situla  
Viperidae  
Vipera schweizeri  
Vipera ursinii

**AMPHIBIANS/AMPHIBIENS**

**CAUDATA**

- Salamandridae
  - Chioglossa lusitanica
  - Mertensiella luschani
  - Salamandra aurorae
  - Triturus cristatus
- Proteidae
  - Proteus anguinus
- Plethodontidae
  - Speleomantes ambrosii
  - Speleomantes flavus
  - Speleomantes genei
  - Speleomantes imperialis
  - Speleomantes supermontes

**ANURA**

- Discoglossidae
  - Bombina bombina
  - Discoglossus pictus
  - Alytes muletensis
- Ranidae
  - Rana latastei
- Pelobatidae
  - Pelobates fuscus insubricus

**FISH/POISSONS**

**PETROMYZONIFORMES**

- Petromyzonidae
  - Eudontomyzon sp.
  - Lampetra fluviatilis
  - Lampetra planeri
  - Lethenteron zanandrai
  - Petromyzon marinus

**ACIPENSERIFORMES**

- Acipenseridae
  - Acipenser naccarii
  - Acipenser sturio
  - Huso huso

**ATHERINIFORMES**

- Cyprinodontidae
  - Aphanius iberus
  - Valentia hispanica

**SALMONIFORMES**

- Coregonidae
  - Coregonus oxyrinchus
- Salmonidae
  - Hucho hucho
  - Salmo salar
  - Salmo (trutta) marmoradus
  - Salmo (trutta) macrostigma
  - Salmo carpio

CYPRINIFORMES

Cyprinidae

Vimba vimba  
Abramis sapa  
Alburnoides bipunctatus  
Alburnus vulturius  
Alburnus albidus  
Rutilus rutilus dojranensis  
Rutilus rutilus maritza  
Rutilus pigus  
Rutilus rubilio prespensis  
Rutilus spartiaticus  
Rutilus arcasii  
Rutilus macrolepidotus  
Rutilus lemmingii  
Rutilus macedonius  
Rutilus Risi meidingeri  
Rutilus alburnoides  
Phoxinellus pleurobipunctatus pleurobipunctatus  
Phoxinellus pleurobipunctatus beoticus  
Phoxinellus stymphalicus  
Phoxinellus adpersus prespensis  
Leuciscus leuciscus burdigalensis  
Leuciscus lucomonis  
Leuciscus souffia  
Leuciscus idus stagnalis  
Rhodeus sericus avarus  
Scardinius graecus  
Chondrostoma nasus prespense  
Chondrostoma nasus vardareense  
Chondrostoma soetta  
Chondrostoma polylepis  
Chondrostoma genei  
Chondrostoma lusitanicum  
Chondrostoma toxostoma  
Gobio gobio bulgaricus  
Gobio gobio feraeensis  
Gobio albipinnatus elimeius  
Gobio uranoscopus  
Iberocypris palaciosi  
Barbus barbus gallicus  
Barbus barbus thessalus  
Barbus plebejus euboicus  
Barbus plebejus prespensis  
Barbus plebejus strumicae  
Barbus meridionalis  
Barbus capito albanicus  
Barbus capito graellsii  
Barbus capito haasi  
Barbus capito bocagei  
Barbus comiza  
Aspius aspius

Cobitidae

Cobitis conspersa  
Cobitis larvata  
Cobitis trichonica

Cobitis taenia  
Misgurnis fossilis  
Sabanejewia laurata

**GADIFORMES**

Gadidae  
Lota lota

**PERCIFORMES**

Percidae  
Gymnocephalus schraetzer  
Zingel asper  
Zingel streber  
Zingel zingel

**Gobiidae**

Pomatoschistus canestrini  
Pomatoschistus pygmaeus  
Padogobius panizzai  
Padogobius nigricans

**CLUPEIFORMES**

Clupeidae  
Alosa alosa  
Alosa fallax killarnensis  
Alosa fallax lacustris

**SCORPAENIFORMES**

Cottidae  
Cottus ferruginosus  
Cottus petiti  
Cottus gobio  
Gasterosteidae  
Pungitius pungitius hellenicus

**SILURIFORMES**

Siluridae  
Silurus aristotelis

INVERTEBRATES / INVERTEBRES

ARTEROPODS / ARTEROPODES

ARACHNIDA

Macrothele calpeiana

CRUSTACRA

DECAPODA

Austropotamobius pallipes  
Thyphloearis salentina

INSECTA

COLEOPTERA

Acmæodera revelierei  
Acmæodera tassii  
Aesalus scarabaeioides  
Agrilus curtulus  
Agrilus massanensis  
Agrilus perisi  
Akimerus schaefferi  
Ampedus quadrisignatus  
Anthaxia castilliana  
Anthaxia ceballosi  
Anthaxia espanoli  
Anthaxia segurensis  
Anisorus quercus  
Brachyleptura strangulata  
Buprestis bertheloti  
Buprestis sanguinea  
Buprestis splendens  
Callimellum abdominale  
Carabus olympiae  
Cerambyx cerdo  
Chalcophora intermedia  
Clinidium canaliculatum  
Cornumutila quadrivittata  
Cucujus oinnaberinus  
Cucujus haematodes  
Dytiscus latissimus  
Glaphyra marmottani  
Graphoderus bilineatus  
Leptura palmi  
Leioderus kollari  
Leiopus punctulatus  
Limoniscus violaceus  
Morimus funereus  
Nustera distigma  
Osmoderma eremita  
Oxypleurus nodieri  
Oxypleurus pinicola  
Phaenops sumptuosa  
Pogonochoerus eugeniae  
Ropalopus insubricus  
Rhysodes germari  
Rhysodes sulcatus



Rosalia alpina  
Saphanus piceus

DIPTERA

Ctenophora festiva  
Keroplatus tipuloides  
Psarus abdominalis  
Spilomyia manicata  
Spilomyia saltuum

HYMENOPTERA

Orussus unicolor

LEPIDOPTERA

Boloria aquilonaria  
Coenonympha oedippus  
Cupido lorquinii  
Erebia calcaria  
Erebia christi  
Eriogaster catax  
Graellsia isabelae  
Hypodryas maturna  
Lycaena dispar  
Maculinea nausithous  
Maculinea teleius  
Melanagria arge  
Papilio hospiton  
Plebicula golgus  
Rhagades predotae  
Zerynthia rumina  
Zygaena ignifera

MANTODEA

Apteromantis aptera

ODONATA

Coenagrion coerulescens  
Coenagrion hylas  
Cordulegaster trinacriae  
Gomphus graslinii  
Leucorrhina pectoralis  
Lindenia tetraphylla  
Macromia splendens  
Onyhogomphus costae  
Onyhogomphus uncatas  
Ophiogomphus oecilia  
Oxygastra curtisii

ORTHOPTERA

Baetica ustulata

MOLLUSCS / MOLLUSQUES

GASTROPODA

Vertigo angustior  
Vertigo genesii  
Vertigo geyeri  
Vertigo moulisiana  
Caseolus oalculus  
Caseolus commixta  
Caseolus sphaerula  
Discula leacockiana  
Discus tabellata  
Discus defloratus

Discus guerinianus  
Discus testudinalis  
Discus turricula  
Elona quimperiana  
Geomalacus maculosus  
Geomitra moniziana  
Helix subplicata  
Leiostola abbreviata  
Leiostola cassida  
Leiostola corneocostata  
Leiostola gibba  
Leiostola lamellosa

**BIVALVIA**

**UNIONOIDA**

Margaritifera margaritifera  
Unio crassus

b) PLANTS / PLANTES

**PTERIDOPHYTA**

**ASPIDACEAE**

*Diplazium caudatum* (Cav.) Jermy

**ASPLENIACEAE**

*Asplenium jahandiezii* (Litard.) Rouy

**BLECHNACEAE**

*Woodwardia radicans* (L.) Sm.

**DRYOPTERIDACEAE**

*Dryopteris corleyi* Fraser-Jenks.

**HYMENOPHYLLACEAE**

*Trichomanes speciosum* Willd.

**ISOETACEAE**

*Isoetes boryana* Durieu

*Isoetes malinverniana* Ces. § De Not.

**LYCOPODIACEAE**

*Diphasium issleri* (Rouy) J. Holub

**MARSILEACEAE**

*Marsilea batardae* Launert

*Marsilea strigosa* Willd.

*Pilularia minuta* Durieu ex A. Braun

**OPHIOGLOSSACEAE**

*Botrychium matricariifolium* A. Braun ex Koch

*Botrychium simplex* Hitchc.

*Ophioglossum polyphyllum* A. Braun

**GYMNOSPERMAE**

**PINACEAE**

*Abies nebrodensis* (Lojac.) Mattei

**ANGIOSPERMAE**

**ALISMATACEAE**

*Luronium natans* (L.) Raf.

**AMARYLLIDACEAE**

*Leucojum nicaeense* Ard.

*Narcissus nevadensis* Pugsley

*Narcissus scaberulus* Henriq.

*Narcissus triandrus* L. ssp. *capax* (Salisb.)  
Webb.

*Narcissus viridiflorus* Schousboe

**APOCYNACEAE**

*Rhazya orientalis* (Decaisne) A. DC.

**BORAGINACEAE**

*Anchusa crispa* Viv.

*Anchusa litorea* Moris

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

*Myosotis rehsteineri* Wartm.

*Myosotis ruscinonensis* Rouy

*Omphalodes littoralis* Lehm.

*Onosma fastigiata* (Br.-Bl.) Lacaita ssp.  
*atlantica* Br.-Bl.

*Solenanthes albanicus* (Degen et al.) Degen §  
Baldacci

*Solenanthes stamineus* (Desf.) Wettst.

*Symphytum cycladense* Pawl.

CAMPANULACEAE

*Azorina vidalii* (H.C. Watson) Feer  
*Campanula baumgartenii* J. Becker  
*Campanula sabatia* De Not.  
*Jasione lusitanica* A. DC.  
*Musschia aurea* (L.f.) DC.  
*Musschia wollastonii* Lowe

CARYOPHYLLACEAE

*Arenaria nevadensis* Boiss. § Reuter  
*Arenaria provincialis* Chater § Halliday  
*Dianthus rupicola* Biv.  
*Gypsophila papillosa* P. Porta  
*Herniaria maritima* Link  
*Loeflingia tavaresiana* G. Samp.  
*Moehringia tommasinii* Marches.  
*Petrocoptis grandiflora* Rothm.  
*Petrocoptis montsiociana* O. Bolos § Rivas Mart.  
*Petrocoptis pseudoviscosa* Fernandez Casas  
*Silene hifacensis* Rouy ex Willk.  
*Silene holzmannii* Heldr. ex Boiss.  
*Silene mariana* Pau  
*Silene orphanidis* Boiss.  
*Silene rothmaleri* Pinto da Silva  
*Silene velutina* Pourret ex Loisel

CHENOPODIACEAE

*Halimione pedunculata* (L.) Aellen  
*Kochia saxicola* Guss.  
*Salicornia veneta* Pignatti § Lausi

CISTACEAE

*Cistus heterophyllus* Desf.  
*Helianthemum alypoides* Losa § Rivas Goday  
*Helianthemum caput-felis* Boiss.  
*Tuberaria major* (Willk.) Pinto da Silva et al.

COMPOSITAE

*Anacyclus alboranensis* Esteve Chueca § Varo  
*Anthemis glaberrima* (Rech. f.) Greuter  
*Artemisia granatensis* Boiss.  
*Artemisia molinieri* Quezel, Barbero et Loisel  
*Aster pyrenaicus* Desf. ex DC.  
*Carduus myriacanthus* Salzm. ex DC.  
*Carlina diae* (Rech. f.) Meusel § Kastner  
*Centaurea aegialophila* Wagenitz  
*Centaurea balearica* J.D. Rodriguez  
*Centaurea borjae* Valdes-Berm. § Rivas Goday  
*Centaurea citricolor* Flont Quer  
*Centaurea oorymbosa* Pourret  
*Centaurea gadorensis* G. Bianca  
*Centaurea heldreichii* Halacsy  
*Centaurea horrida* Badaro  
*Centaurea kalambakensis* Freyn § Sint.  
*Centaurea kartschiana* Soop.  
*Centaurea lactiflora* Halacsy  
*Centaurea linaresii* Lazaro  
*Centaurea megarensis* Halacsy § Hayek  
*Centaurea niederi* Heldr.  
*Centaurea peucedanifolia* Boiss; § Orph.  
*Centaurea pinnata* Pau  
*Centaurea princeps* Boiss. § Heldr.  
*Centaurea pulvinata* (G. Bianca) G. Bianca

*Crepis crocifolia* Boiss & Heldr.  
*Crepis granatensis* (Willk.) B. Bianca & M. Cueto  
*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 sículus* (Guss.) Finch & Sell  
*Nolletia chrysocomoides* (Desf.) Cass. ex Less.  
*Senecio alboranicus* Maire  
*Senecio elodes* Boiss. ex DC.  
*Senecio nevadensis* Boiss. & Reuter

**CONVOLVULACEAE**

*Convolvulus argyrothamnos* Greuter

**CRASSULACEAE**

*Crassula aquatica* (L.) Schonl.

**CRUCIFERAE**

*Alyssum arenarium* Loisel  
*Alyssum fastigiatum* Heywood  
*Biscutella divionensis* Jordan  
*Biscutella neustriaca* Bonnet  
*Biscutella rotgesii* Fouc.  
*Boleum asperum* (Pers.) Desvauz  
*Brassica glabrescens* Poldini  
*Brassica insularis* Moris  
*Brassica macrocarpa* Guss.  
*Coincya leptocarpa* (Gonz.-Albo) Greuter & Burdet  
*Coincya rupestris* Rouy  
*Coronopus navasii* Pau  
*Diplotaxis ibicensis* (Pau) Gomez-Campo  
*Diplotaxis siettiana* Maire  
*Erucastrum palustre* (Pirona) Vis.  
*Hormathophylla pyrenaica* (Lapeyr.) Cullen &  
Dudley  
  
*Iberis arbuscula* Runemark  
*Iberis embergii* Serve  
*Ionopsidium acaule* (Desf.) Reichenb.  
*Ionopsidium savianum* (Caruel) Ball ex Arcang.  
*Lepidium cardamines* L.  
*Rhynchosinapis johnstonii* (G. Samp.) Heywood  
*Sisymbrium matritense* P.W. Ball & Heywood  
*Sisymbrium supinum* L.

**CYPERACEAE**

*Carex camposii* Boiss. & Reuter  
*Carex durieui* Steudel  
*Eleocharis carniolica* Koch  
*Eriophorum gracile* Koch ex Roth

**DIOSCOREACEAE**

*Borderea chouardii* (Gaussen) Heslot

**ELATINACEAE**

*Elatine brochonii* Clavaud

**EUPHORBIACEAE**

*Euphorbia hierosolymitana* Boiss.  
*Euphorbia margalidiana* Kuhbler & Lewejohann  
*Euphorbia ruscinoensis* Boiss.

**GENTIANACEAE**

*Centaurium rigualii* Esteve Chueca  
*Centaurium somedanum* Lainz  
*Gentiana ligustica* R. de Vilm. § Chopinet  
*Gentianella uliginosa* (Willd.) Borner

**GERANIACEAE**

*Erodium astragaloides* Boiss. § Reuter  
*Erodium rupicola* Boiss.  
*Geranium maderense* P.F. Yeo

**GRAMINEAE**

*Calamagrostis scotica* (Druoe) Druce  
*Coleanthus subtilis* (Tratt.) Seidl  
*Festuca morisiana* Parl.  
*Gaudinia hispanica* Stace § Tutin  
*Micropyropsis tuberosa* Romero - Zarco § Cabezudo  
*Puccinellia pungens* (Pau) Paunero  
*Stipa austroitalica* Martinovsky  
*Stipa bavarica* Martinovsky § H. Scholz  
*Trisetaria dufourei* (Boiss.) Paunero  
*Trisetum conradiae* Gamisans  
*Vulpia fontquerana* Melderis § Stace

**GROSSULARIACEAE**

*Ribes sardum* Martelli

**HYPERICACEAE**

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

**LABIATAE**

*Dracocephalum austriacum* L.  
*Micromeria taygetea* P.H. Davis  
*Nepeta sphaciotica* P.H. Davis  
*Origanum dictamnus* L.  
*Sideritis inoana* subsp. *glauca* (Cav.)  
*Malagarriga*  
*Sideritis javalambrensis* Pau  
*Teucrium lepicephalum* Pau  
*Teucrium turredanum* Losa § Rivas Goday  
*Thymus albicans* Hoffmanns. § Link  
*Thymus antonina* Rouy § Coincy  
*Thymus camphoratus* Hoffmanns. § Link  
*Thymus capitellatus* Hoffmanns. § Link  
*Thymus carnosus* Boiss.  
*Thymus cephalotos* L.  
*Thymus loscosii* Willk.  
*Thymus plasonii* Adamovio

**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  
*Ononis maweana* Ball  
*Trifolium saxatile* All.  
*Vicia bifoliolata* J.D. Rodriguez

**LENTIBULARIACEAE**

*Pinguicula nevadensis* (Lindb.) Casper

LILIACEAE

*Allium grosii* Font Quer  
*Asphodelus bento-rainhae* P. Silva  
*Fritillaria euboica* Rix  
*Muscari gussonei* (Parl.) Tod.  
*Tulipa goulimyi* Sealy & Turrill  
*Tulipa undulatifolia* Boiss.

LINACEAE

*Linum leonii* F.W. Schultz

LYTHRACEAE

*Lythrum flexuosum* Lag.

MALVACEAE

*Kosteletzkya pentacarpos* (L.) Ledeb.

NAJADACEAE

*Najas flexilis* (Willd.) Rostk. & W.L. Schmidt

ORCHIDACEAE

*Cephalanthera cucullata* Boiss. & Heldr.  
*Comperia comperiana* (Steven) Aschers. & Graebner  
*Goodyera macrophylla* Lowe  
*Hammarbya paludosa* (L.) Kuntze  
*Liparis loeselii* (L.) Rich.  
*Ophrys lunulata* Parl.  
*Spiranthes aestivalis* (Poiret) L.C.M. Richard

PAEONIACEAE

*Paeonia cambessedesii* (Willk.) Willk.  
*Paeonia parnassica* Tzanoudakis  
*Paeonia rhodia* Stern

PALMAE

*Phoenix theophrasti* Greuter

PAPAVERACEAE

*Rupicapnos africana* (Lam.) Pomel  
*Sarcocapnos baetica* (Boiss. & Reuter) Nyman  
*Sarcocapnos speciosa* Boiss.

PITTIOSPORACEAE

*Pittosporum coriaceum* Dryand. ex Ait.

PLUMBAGINACEAE

*Armeria euscadiensis* Vivant  
*Armeria rouyana* Daveau  
*Armeria soleirolii* (Duby) Godron  
*Armeria velutina* Welv. ex Boiss. & Reuter  
*Limonium bellidifolium* (Gouan) Dumort.  
ssp. *dubyi* (Gren. & Godron) P. Fourn.

POLYGONACEAE

*Rumex rupestris* Le Gall

POTAMOGETONACEAE

*Potamogeton rutilus* Wulfg.

PRIMULACEAE

*Androsace mathildae* Levier  
*Androsace pyrenaica* Lam.  
*Primula apennina* Widmer  
*Primula palinuri* Petagna  
*Soldanella villosa* Darracq.

RANUNCULACEAE

*Aconitum corsicum* Gayer  
*Adonis cyllenea* Boiss., Heldr. & Orph.  
*Adonis distorta* Ten.  
*Aquilegia bertolonii* Schott  
*Aquilegia cazorensis* Heywood  
*Aquilegia litardierei* Briq.

*Aquilegia ottonis* Orph. ex Boiss.  
*Consolida samia* P.H. Davis  
*Delphinium requienii*. DC.  
*Helleborus lividus* ssp. *lividus* Aiton  
*Pulsatilla patens* (L.) Miller  
*Ranunculus acetosellifolius* Boiss.  
*Ranunculus cabrerensis* Rothm.  
*Ranunculus fontanus* C. Presl  
*Ranunculus nodiflorus* L.  
*Ranunculus weyleri* Mares

RESEDACEAE

*Reseda decursiva* Forssk.

ROSACEAE

*Chamaemeles coriacea* Lindl.  
*Potentilla delphinensis* Gren. & Godron

RUBIACEAE

*Galium litorale* Guss.  
*Galium viridiflorum* Boiss. & Reuter

SANTALACEAE

*Thesium ebracteatum* Hayne

SAXIFRAGACEAE

*Saxifraga berica* (Beguinot) D.A. Webb  
*Saxifraga florulenta* Moretti  
*Saxifraga hirculus* L.  
*Saxifraga tombeanensis* Boiss. ex Engl.

SCHEUCHZERIAEAE

*Scheuchzeria palustris* L.

SCROPHULARIACEAE

*Antirrhinum charidemi* Lange  
*Linaria algarviana* Chav.  
*Linaria ficalhoana* Rouy  
*Linaria flava* (Poirot) Desf.  
*Linaria hellenica* Turrill  
*Linaria lamarckii*  
*Linaria ricardoi* Cout.  
*Linaria thursica* B. Valdes & Cabezudo  
*Linaria tonzigii* Lona  
*Lindernia procumbens* (Krooker) Philcox  
*Odontites granatensis* Boiss.  
*Verbascum cylleneum* (Boiss. & Heldr.) Kuntze  
*Verbascum litigiosum* G. Samp  
*Veronica oetaea* L.-A. Gustavson

SELAGINACEAE

*Globularia stygia* Orph. ex Boiss.

SOLANACEAE

*Atropa baetica* Willk.

THYMELAEACEAE

*Daphne petraea* Leybold  
*Daphne rodriguezii* Texidor

TYPHACEAE

*Typha minima* Funck

ULMACEAE

*Zelkova abelica* (Lam.) Boiss.

UMBELLIFERAE

*Angelica heterocarpa* Lloyd  
*Apium bermejoi* Llorens  
*Athamanta cortiana* Ferrarini  
*Eupleurum capillare* Boiss. & Heldr.  
*Eupleurum dianthifolium* Guss.



Bupleurum kakiskalae Greuter  
Eryngium alpinum L.  
Eryngium viviparum Gay  
Laserpitium longiradium Boiss.  
Naufraga balearica Constans & Cannon  
Oenanthe coniocides Lange  
Petagnia saniculifolia Guss.  
Rouya polygama (Desf.) Coincy  
Seseli djianeae Gamicans  
Seseli intricatum Boiss.

**VALERIANACEAE**

Centranthus trinervis (Viv.) Beguinot

**VIOLACEAE**

Viola hispida Lam.  
Viola stolonifera Rodriguez

LOWER PLANTS / PLANTES INFÉRIEURES

**ALGAE**

**CHARACEAE (green algae)**

Lamprothamnium papulosum (Walroth) J. Grove

**FUNGI**

**HYGROPHORACEAE**

Hygrocybe punicea (Fr., Fr.) Kummer

**THELEPHORACEAE**

Sarcodon imbricatus (L., Fr.) P. Karsten

**MACRO-LICHENES**

**USNEACEAE**

Usnea longissima Ach.  
Nephroma hessenniae P. James & F.J. White

**BRYOPHYTA**

Adelanthus lindenbergianus (Lehm.) Mitt.  
Barbula maxima Syed & Crundwell  
Cephalozia hibernica Spruce ex Pears.  
Cyclodictyon lactevirens (Hook. & Tayl.) Mitt.  
Daltonia splachnoides (Sm.) Hook. & Tayl.  
Geocalyx graveolens (Schrad.) Nees  
Gymnostomum insigne (Dix.) A.J.E. Smith  
Helodium blandowii (Web. & Mohr) Warnst.  
Lejeunea flava (Sw.) Nees  
Lejeunea hibernica Bischl, H. Miller & Bonner  
Lejeunea holtii Spruce  
Lejeunea mandonii (Steph.) K. Muell.  
Oxystegus hibernicus (Mitt.) Hilp.  
Radula holtii Spruce  
Riella notarisii Mont.  
Seligeria oelandica C. Jens. & Medel  
Teleranea nematodes (Gott. ex Aust.) Howe.

SPECIES FOR MACARONESIA / ESPECES POUR LA MACARONESIE

**PTERIDOPHYTA**

*Hymenophyllum maderense*  
*Polystichum drepanum*

**ASCLEPIADACEAE**

*Ceropegia chrysantha*

**CAMPANULACEAE**

*Azorina vidalii*  
*Musschia aurea*  
*Musschia wollastonii*

**COMPOSITAE**

*Argyranthemum lidii*  
*Atractylis arbuscula*  
*A. preauxiana*  
*Cheirolphus duranii*  
*C. ghomerytus*  
*C. junonianus*  
*C. massonianus*  
*Helichrysum oligocephala*  
*Lactuca watsoniana*  
*Onopordum nogalesii*  
*O. carduelinum*  
*Pericallis hadrosomus*  
*Stemmacantha cynaroides*  
*Sventenia bupleuroides*  
*Tanacetum ptarmaciflorum*

**BORAGINACEAE**

*Echium gentianoides*

**CRUCIFERAE**

*Crambe arborea*  
*Crambe laevigata*  
*Crambe sventenii*  
*Parolinia schizogynoides*

**CISTACEAE**

*Cistus chinamadensis*  
*Helianthemum bystropogophyllum*

**CONVOLVULACEAE**

*Convolvulus ocaput-medusae*  
*C. lopez-socasioi*

**CRASSULACEAE**

*Aeonium gomeraense*  
*A. saundersii*  
*Monanthes wildpretii*

**EUPHORBIACEAE**

*Euphorbia lambii*

**GERANIACEAE**

*Geranium maderense*

**LEGUMINOSAE**

*Lotus azoricus*

**ORCHIDACEAE**

*Goodyera macrophylla*

**PITTIOSPORACEAE**

*Pittosporum ooreaceum*

**ROSACEAE**

*Chamaemeles coriacea*

**SCROPHULARIACEAE**

*Euphrasia azorica*

UMBELLIFERAE

*Bupleurum handiense*

*Ferula latipinna*

ANNEX II / ANNEXE II

Species of animals and plants threatened in the Community.

Espèces de faune et de flore menacées dans la Communauté.

a) ANIMALS / ANIMAUX

VERTEBRATES / VERTEBRES

MAMMALS/MAMMIFERES

**INSECTIVORA**

Erinaceidae

Erinaceus algirus

Erinaceus europaeus

Soricidae

Crocidura canariensis

Suncus etruscus

Talpidae

Galemys pyrenaicus

**MICROCHIROPTERA**

All species /

Toutes les espèces

**RODENTIA**

Gliridae

All species except Glis glis /

Toutes les espèces sauf Glis glis

Sciuridae

Citellus citellus

Sciurus anomalus

Castoridae

Castor fiber

Cricetidae

Cricetus cricetus

Mirotidae

Mirotus cabrerai

Mirotus oeconomus arenicola

Zapodidae

Sialia betulina

Hystrioidae

Hystrix cristata

**CARNIVORA**

Canidae

Canis lupus (Except Spanish populations /  
Exceptées les populations  
espagnoles)

Ursidae

All species /

Toutes les espèces

**Mustelidae**

Lutra lutra  
Mustela lutreola  
Mustela nivalis boccamela  
Mustela putorius

**Felidae**

Felis silvestris  
Lynx lynx  
Lynx pardina

**Phocidae**

Halichoerus grypus  
Monachus monachus  
Phoca vitulina

**ARTIODACTYLA**

**Cervidae**

Cervus elaphus corsicanus

**Bovidae**

Capra aegagrus  
Capra pyrenaica pyrenaica  
Ovis ammon musimon  
(Natural Populations - Corsica and Sardinia  
Populations naturelles - Corse et Sardaigne)  
Rupicapra rupicapra balcanica  
Rupicapra rupicapra ornata

**CETACEA**

All species /  
Toutes les espèces

**REPTILES**

**TESTUDINES**

**Testudinidae**

Testudo hermanni  
Testudo graeca  
Testudo marginata

**Cheloniidae**

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  
Lacerta agilis  
Lacerta bedriagae  
Lacerta danfordi

Lacerta dugesi  
Lacerta graeca  
Lacerta horvathi  
Lacerta lepida  
Lacerta monticola  
Lacerta prinoeps  
Lacerta schreiberi  
Lacerta trilineata  
Lacerta viridis  
Gallotia atlantica  
Gallotia galloti  
Gallotia gallotia insulanagae  
Gallotia simonyi  
Gallotia stehlini  
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 kitaibelli  
Chalcides bedriagai  
Chalcides occidentalis  
Chalcides ocellatus  
Chalcides sexlineatus  
Chalcides viridianus  
Ophiomorus punctatissimus

Geckonidae

Cyrtopodion kotschyi  
Phyllodaotylus europaeus  
Tarentola angustimentalis  
Tarentola boettgeri  
Tarentola delalandii  
Tarentola gomerensis

Agamidae

Stellio stellio

Chamaeleontidae

Chamaeleo chamaeleon

Anguidae

Ophisaurus apodus

OPHIDIA

Colubridae

Coluber caspius  
Coluber hippoorepis  
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 oorsa  
Natrix tessellata  
Telescopus falax

Viperidae

Vipera ammodytes  
Vipera latasti  
Vipera schweizeri  
Vipera seoanei  
Vipera ursinii  
Vipera xanthina

AMPHIBIANS/AMPHIBIENS

CAUDATA

Salamandridae

Chioglossa lusitaniae  
Euproctus asper  
Euproctus montanus  
Euproctus platyocephalus  
Salamandra atra  
Salamandra aurorae  
Salamandra lanzai  
Salamandra luschani  
Salamandrina terdigitata  
Triturus carnifex  
Triturus cristatus  
Triturus dobrogicus  
Triturus italicus  
Triturus karelinii  
Triturus marmoratus

Proteidae

Proteus anguinus

Plethodontidae

Speleomantes ambrosii  
Speleomantes flavus  
Speleomantes genei  
Speleomantes imperialis  
Speleomantes italicus  
Speleomantes supramontes

ANURA

Discoglossidae

Bombina bombina  
Bombina variegata  
Discoglossus galganoi  
Discoglossus jeanneae  
Discoglossus montalentii  
Discoglossus pictus  
Discoglossus sardus  
Alytes oisternasii  
Alytes muletensis  
Alytes obstetricans

**Ranidae**

*Rana arvalis*  
*Rana dalmatina*  
*Rana graeca*  
*Rana iberica*  
*Rana italica*  
*Rana latastei*

**Pelobatidae**

*Pelobates cultripes*  
*Pelobates fuscus*  
*Pelobates syriacus*

**Bufo**

*Bufo calamita*  
*Bufo viridis*

**Hylidae**

*Hyla arborea*  
*Hyla meridionalis*  
*Hyla sarda*

**FISH/POISSONS**

**ACIPENSERIFORMES**

**Acipenseridae**

*Acipenser naccarii*

**ATHERINIFORMES**

**Cyprinodontidae**

*Valentia hispanica*

**SALMONIFORMES**

**Coregonidae**

*Coregonus oxyrinchus*

**PERCIFORMES**

**Percidae**

*Zingel asper*



INVERTEBRATES / INVERTEBRÉS

ARTHOPODS / ARTHROPODES

INSECTA

COLEOPTERA

Akimerus schaefferi  
Ampedus quadrisignatus  
Buprestis splendens  
Carabus olympiae  
Cerambyx cerdo  
Clinidium canaliculatum  
Cucujus cinnaberinus  
Cucujus haematodes  
Dytiscus latissimus  
Graphoderus bilineatus  
Lucanus cervus  
Osmoderma eremita  
Rhysodes germari  
Rhysodes sulcatus  
Rosalia alpina

LEPIDOPTERA

Apatura metis  
Coenonympha hero  
Coenonympha oedippus  
Erebia calcaria  
Erebia christi  
Erebia sudetica  
Eriogaster catax  
Euphydryas aurinia  
Fabriciana elisa  
Hypodryas maturna  
Hyles hippophaes  
Lopinga achine  
Lycaena dispar  
Maculinea arion  
Maculinea nausithous  
Maculinea teleius  
Melanargia arge  
Papilio alexanor  
Papilio hospiton  
Parnassius apollo  
Parnassius mnemosyne  
Plebicula golgus  
Proserpinus prosperpina  
Zerynthia polyxena

MANTODEA

Apteromantis aptera

ODONATA

Aeshna viridis  
Coenagrion mercuriale  
Cordulegaster trinacriae  
Gomphus flavipes  
Gomphus graslinii  
Leucorrhinia albifrons  
Leucorrhinia caudalis

Leucorrhinia pectoralis  
Lindenia tetraphylla  
Macromia splendens  
Ophiogomphus oecilia  
Oxygastra curtisii  
Stylurus flavipes  
Sympecma braueri

**ORTHOPTERA**

Baetica ustulata  
Saga pedo

**ARACHNIDA**

**ARANEAE**

Macrothele calpeiana

**MOLLUSCS / MOLLUSQUES**

**GASTROPODA**

**STYLOMMATOPHORA**

Caseolus calculus  
Caseolus commixta  
Caseolus sphaerula  
Catinella arenaria  
Discula leacockiana  
Discula tabellata  
Discula testudinalis  
Discula turricula  
Discus defloratus  
Discus guerinianus  
Elona quimperiana  
Geomalacus maculosus  
Geomitra moniziana  
Helix subplicata  
Leiostola abbreviata  
Leiostola cassida  
Leiostola corneocostata  
Leiostola gibba  
Leiostola lamellosa

**BASOMMATOPHORA**

Myxas glutinosa

**BIVALVIA**

**UNIONOIDA**

Margaritifera auricularia  
Unio crassus

b) PLANTS / PLANTES

Annex I Ib should contain all plant species listed in Annex Ib, plus those mentioned below.

L'Annexe I Ib doit contenir toutes les espèces végétales énumérées dans l'Annexe Ib, plus celles mentionnées ci-dessous.

**PTERIDOPHYTA**

**ASPLENIACEAE**

*Asplenium hemionitis* L.

**DICKSONIACEAE**

*Culcita macrocarpa* C. Presl

**HYMENOPHYLLACEAE**

*Hymenophyllum maderensis*

**GYMNOSPERMAE**

**CUPRESSACEAE**

*Juniperus drupacea* Labill.

**ANGIOSPERMAE**

**AMARYLLIDACEAE**

*Galanthus reginae-olgae* Orph.

*Narcissus longispathus* Pugsley

**ASCLEPIADACEAE**

*Caralluma europea* (Guss.) N.E.Br.

**BERBERIDACEAE**

*Berberis maderensis* Lowe

**BORAGINACEAE**

*Omphalodes luciliae* Boiss.

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

Baldacci

**CAMPANULACEAE**

*Asyneuma giganteum* (Boiss.) Bornm.

*Campanula aizoon* Boiss. & Spruner

*Campanula morettiana* Reichenb.

*Physoplexis oomosa* (L.) Schur.

*Trachelium asperuloides* Boiss. Orph.

**CARYOPHYLLACEAE**

*Dianthus gratianopolitanus* Vill.

*Dianthus pulviniformis* Greuter

*Moehringia fontqueri* Pau

*Petrocoptis pseudoviscosa* Fernandez Casas

*Silene haussknechtii* Heldr. ex Hausskn.

**CONVOLVULACEAE**

*Convolvulus massonii* Dietr.

**COMPOSITAE**

*Argyranthemum pinnatifidum* ssp. *succulentum*

*Helichrysum sibthorpii* Rouy

*Santolina elegans* Boiss. ex DC.

*Wagenitzia tenuifolia* (Sieber ex Sprengel) Dostal

**EUPHORBIACEAE**

*Euphorbia nevadensis* Boiss. & Reuter

GERANIACEAE

*Erodium chrysanthum* L'Her. ex DC.

GESNERIACEAE

*Jankaea heldreichii* (Boiss.) Boiss.

*Ramonda serbica* Pancic

IRIDACEAE

*Crocus etruscus* Parl.

*Crocus robertianus* C.D. Brickell

*Iris marisca* Ricci & Colasante

LABIATAE

*Dracocephalum austriacum* L.

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

*Origanum compactum* Benth.

*Origanum scabrum* Boiss. & Heldr.

*Rosmarinus tomentosus* Huber-Morath & Maire

*Teucrium charidemi* Sandwith

LILIACEAE

*Androcymbium europeum* (Lange) K. Richter

*Colchicum corsicum* Baker

*Colchicum cousturieri* Greuter

*Fritillaria conica* Rix

*Fritillaria drenovskii* Dogen & Stoy.

*Fritillaria epirotica* Turrill ex Rix

*Fritillaria gussichiae* (Degen & Doerfler) Rix

*Fritillaria involucrata* All.

*Fritillaria obliqua* Ker-Gawl.

*Fritillaria rhodocanakis* Orph. ex Baker

*Fritillaria tuntasia* Heldr. ex Halacsy

*Hyacinthella atchleyi* (A.K. Jackson et al.)

Feinbrun

*Lilium pomponium* L.

*Ornithogalum reverchonii* Degen & Herv.-Bass.

*Scilla odorata* Link

MALVACEAE

*Lavatera mauritanica* Durieu

ORCHIDACEAE

*Epipogium aphyllum* Sw.

*Ophrys argolica* Fleischm.

*Orchis scopulorum* Simsmerh.

PRIMULACEAE

*Androsace chaixii* Gren. & Godron

*Androsace cylindrica* DC.

*Primula allionii* Loisel.

*Primula glaucescens* Moretti

*Primula spectabilis* Tratt.

RANUNCULACEAE

*Aquilegia alpina* L.

*Aquilegia bertolonii* Schott

ROSACEAE

*Cotoneaster nummularia* Fischer & C.A. Meyer

SAXIFRAGACEAE

*Saxifraga arachnoidea* Sternb.

*Saxifraga cintrana* Kuzinsky ex Willk.

*Saxifraga diapensioides* Bellardi

*Saxifraga facchinii* Koch

*Saxifraga italica* D.A. Webb

*Saxifraga portosanctana* Boiss.

*Saxifraga presolanensis* Engl.

*Saxifraga tombeanensis* Boiss. ex Engl.

*Saxifraga valdensis* DC.

*Saxifraga vayredana* Luizet

SCROPHULARIACEAE

*Euphrasia azorica* Wats.

SOLANACEAE

*Mandragora officinarum* L.

THYMELAEACEAE

*Daphne jasminea* Sibth. & Smith

UMBELLIFERAE

*Bunium brevifolium* Lowe

*Eryngium alpinum* L.

VIOLACEAE

*Viola athis* W. Becker

*Viola cazorlensis* Gandoger

*Viola delphinantha* Boiss.

ANNEX III / ANNEXE III

Animals and plants whose exploitation should be subject to a management plan.

Animaux et plantes dont l'exploitation doit faire l'objet d'un plan de gestion.

a) ANIMALS / ANIMAUX

VERTEBRATES / VERTEBRES

MAMMALS/MAMMIFERES

**CARNIVORA**

Canidae

Canis aureus

Canis lupus (Spanish populations /  
Populations espagnoles)

Mustelidae

Martes martes

Phocidae

All species not mentioned in annex II /  
Toutes les espèces non-mentionnées à l'annexe II

Viverridae

Genetta genetta

**DUPLICIDENTATA**

Leporidae

Lepus timidus

**ARTIODACTYLA**

Bovidae

Capra ibex

Capra pyrenaica (except / sauf Capra pyrenaica  
pyrenaica)

Ovis ammon musimon

(except populations mentioned in annex II /  
exceptées les populations mentionnées à  
l'annexe II)

Rupicapra rupicapra

(except / sauf Rupicapra rupicapra balcanica  
and / et Rupicapra rupicapra ornata)

**AMPHIBIANS/AMPHIBIENS**

**ANURA**

Ranidae

Rana esculenta  
Rana perezi  
Rana ridibunda  
Rana temporaria

**FISH/POISSONS**

**PETROMYZONIFORMES**

Petromyzonidae

Eudontomyzon sp.  
Lampetra fluviatilis  
Lampetra planeri  
Lethenteron zanandrai  
Petromyzon marinus

**ACIPENSERIFORMES**

Acipenseridae

Acipenser sturio  
Huso huso

**ATHERINIFORMES**

Cyprinodontidae

Aphanius iberus

**SALMONIFORMES**

Coregonidae (Coregonus)

All species except Coregonus oxyrhynchus /  
Toutes les espèces sauf Coregonus oxyrhynchus

Salmonidae

Hucho hucho  
Salmo salar (Except salmon in sea waters /  
Exceptés les saumons dans les eaux  
marines)

Cyprinidae

Vimba vimba  
Abramis sapa  
Alburnus albidus  
Rutilus pigus  
Rutilus rubilio  
Rutilus arcasii  
Rutilus macrolepidotus  
Rutilus lemmingii  
Rutilus macedonicus  
Rutilus alburnoides  
Rutilus frisii  
Phoxinellus adspersus  
Leuciscus lucumotis  
Leuciscus souffia  
Rhodeus sericus  
Chondrostoma nasus  
Chondrostoma soetta  
Chondrostoma polylepis

Chondrostoma genei  
Chondrostoma lusitanicum  
Chondrostoma toxostoma  
Gobio albipinnatus  
Barbus plebejus  
Barbus meridionalis  
Barbus comiza  
Aspius aspius  
Cobitidae  
Cobitis larvata  
Cobitis taenia  
Cobitis trichonica  
Misgurnus fossilis  
Sabanejewia aurata

**PERCIFORMES**

Percidae  
Gymnocephalus schraetzer  
Zingel streber  
Zingel zingel  
Gobiidae  
Padogobius panizzai  
Padogobius nigricans  
Pomatoschistus canestrini

**CLUPEIFORMES**

Clupeidae  
Alosa alosa  
Alosa fallax

**GASTEROSTRIFORMES**

Gasterosteidae  
Pungitius pungitius hellenicus

**SILURIFORMES**

Siluridae  
Silurus aristotelis



INVERTEBRATES / INVERTEBRES

**COKLENTERATA**

**CNIDARIA**

Corallium rubrum

**MOLLUSCA**

**GASTROPODA - STYLOMMATOPHORA**

Helicidae

Helix pomatia

**BIVALVIA - UNIONOIDA**

Margaritiferidae

Margaritifera margaritifera

Unionidae

Microcondylaea compressa

Unio elongatulus

**ANNELIDA**

**HIRUDINEA - ARHYNCHOBDELLAE**

Hirudinidae

Hirudo medicinalis

**ARTHROPODA**

**CRUSTACEA - DECAPODA**

Astacidae

Astacus astacus

Austropotamobius pallipes

Austropotamobius torrentium

**INSECTA - LEPIDOPTERA**

Saturniidae

Graellsia isabelae

b) PLANTS / PLANTES

**THALLOPHYTES**

Cladonia subgenus Cladina

**BRYOPHYTES**

Sphagnum spp.

Leucobryum glaucum (Hedw.) Angstr.

**PTERIDOPHYTES**

Lycopodium spp.

Osmunda regalis L.

Polystichum setiferum (Forsk.) Woynar

**PHANEROGAMES GYMNOSPERMES**

Taxus baccata L.

**PHANEROGAMES ANGIOSPERMES**

Asparagus acutifolius L.

Galanthus nivalis L.

Iris chamaeiris Bertol.

Lilium croceum Chaix

Lilium rubrum Lmk

Narcissus bulbocodium L.

Narcissus joncifolius Lagasca

Ornithogalum pyrenaicum L.

Ruscus aculeatus L.

Tamus communis L.

Arnica montana L.

Artemisia eriantha Ten

Artemisia genipi Weber

Buxus sempervirens L.

Crithmum maritimum L.

Eryngium maritimum L.

Gentiana lutea L.

Helichrysum stoechas (L.) DC. s.l.

Ilex aquifolium L.

Limonium spp. (except / sauf Limonium bellidifolium  
(Gouan) Dumort.)

Otanthus maritimus (L.) Hoffm. et Link

Salicornia spp.

Anemone hepatica L.

Viscum album L.

ANNEXE IV

Natural and semi-natural habitats to be protected within  
the Community

Interpretation

The hierarchical classification of habitats, produced through the CORINE<sup>(1)</sup> programme (CORINE BIOTOPES PROJECT) is the basic work used for the establishment of the Annex IV. Each habitat shows the corresponding Corine code listed in the document: "Technical Handbook - volume 1 - PP. 73-109 - CORINE/BIOTOPE/89-2.2, 19 May 1988, partially updated February 14, 1989.

COASTAL AND HALOPHITIC HABITATS

Open sea (11.2), Estuaries (13.2) and Tidal Rivers (13.1)

- along the Atlantic coasts:
  - 11.25 sand banks which are slightly covered by seawater all the time.
  - 14 mud flats and sand flats which are not covered by seawater at low tide.
- The Mediterranean and thermo-Atlantic coasts:
  - 11.34 The beds of Posidonion

Sea cliffs and their vegetation (biotopes 17.2 and 17.3).

- 18.21 Atlantic coasts
- 18.22 Mediterranean coasts (with endemic Limonietalia)
- 18.23 Macaronesian coast (flora endemic to these coasts).

Atlantic salt marshes and salt pastures

- 15.1 All zonal sub-types (15.11, 15.12, 15.13, 15.14).

Mediterranean and thermo-atlantic salt marshes and salt pastures

- 15.1 The various subtypes, particularly 15.15 and especially 15.16 (with Arthrocnemum fruticosae) and 15.17 (Iberian Pegano-Salsoletea).

Salt or gypsum steppes

- 15.18 Salt steppes (Limonietalia)
- 15.19 Gypsum steppes (Gypsophiletalia)

COASTAL SAND DUNES AND CONTINENTAL DUNES

Dunes (16.2)

- Atlantic
  - 16.21 Embryonic shifting dunes with vegetation (16.211)  
Shifting dunes along the shoreline with Ammophilon (16.212) (white dunes)

(1) CORINE: Council Decision of 27 June 1985 (85/338/CEE)

- 16.22 Fixed dunes with herbaceous vegetation (grey dunes), all regional sub-types (16.221-16.227)
- 16.23 Decalcified fixed dunes with Empetrum nigrum (North Sea)
- 16.24 Decalcified fixed dunes with Calluna-Ullicetea p. (Atlantic)
- 16.25 Dunes with Hypochaeris glabra
- 16.26 Dunes with Salix arenaria
- 16.3 Humid dune-slacks - all zonal types (16.31-16.35)
- 1A Machairs and Turloughs

- Mediterranean

- 16.223 Sandy beaches with Crucianellon maritima
- 16.222 Dunes with Euphorbia terracina
- 16.27 Juniper thickets (Juniperion lyciae)
- 16.228 Dunes with Malcolmietalia
- 16.224 Dunes with Brachypodietalia and annuals
- 16.26 Sclerophyllous scrubs (Cisto-Lavanduletalia)
- 16.29 Dune forests with Pinus pinea and/or Pinus pinaster (see also 42.8)

Continental dunes, old and decalcified (64.1)

- 35.2 Open grassland with Corynephorus and Agrostis of continental dunes
- 31.2 Dry sandy heaths with Calluna and Genista (31.223) or Empetrum (31.227)

FRESHWATER HABITATS

Standing water (ponds and lakes).

- 22.11 Oligotrophic waters containing very few minerals of Atlantic sandy plains. Amphibious vegetation: Lobelia, Littorelletalia and Isoetalia (22.311, 22.312, 22.314)
- 22.12 Oligo-mesotrophic waters in central Europe and around the Alps with amphibious vegetation: Littorelletalia and Isoetalia (22.31) and annual vegetation on exposed banks (Nanocyperetalia) (22.32).
- 22.12 Hard oligo-mesotrophic waters  
22.44 benthic vegetation with Chara formations in relation to 53.3 and 53.32
- 22.34 Mediterranean temporary ponds with Isoetalia on sand or with Ranunculus nodiflorus on siliceous rock (22.342) or with Poa badensis on calcareous rock (22.343)

Running water - Lotic habitats

Animal species of freshwater appearing in Annex I (mainly fish) could be used as bio-indicators to identify the least polluted and most interesting water-courses or parts of water-courses.

Moreover the following types of running water are of special interest:

- sub-Alpine rivers and the herbaceous vegetation along their banks (24.221 and 24.222) and their ligneous vegetation: Tamarix germanica (24.223) and Salix eleagnos (24.224)

- sub-mountainous rivers
  - 24.4 floating vegetation: Ranuncullon fluvialilis
  - 24.226 populations of Pentastition
  - 24.52 Chenopodion rubri
- constantly flowing Mediterranean rivers
  - 24.225 Glaucion fiavi
  - 24.53 Paspalo-Agrostidion and hanging curtains of willow and Popula alba along the banks
- intermittently flowing Mediterranean rivers:

### TEMPERATE HEATH AND SCRUB

- 31.1 Atlantic wet heaths with Erica and Sphagnum and possibly some thickets of Myrica gale
  - 31.11 Northern wet heaths: Erica tetralix
  - 31.12 Southern wet heaths: Erica ciliaris, Erica tetralix
- 31.2 Dry heaths: Erica vagans (Armorican, Irish and Cornish) (31.231) and with Erica machaiana (Ireland) (31.233)
- 31.3. Endemic Macaronesian  
Types 31.31 to 31.36 and 31.3B, especially those in regression.
- 31.4 Alpine and sub-alpine heaths
- 31.5 Dwarf mountain pine and hairy rhododendron scrub (Mugo - Rhodoretum hirsuti)
- 31.7-31.9 Oro-Mediterranean heaths with endemic gorse

### SCLEROPHYLLOUS SCRUB (MATORRAL)

Priority for residual or endemic types.

#### Sub-Mediterranean

- 31.82 Buxus sempervirens formations on calcareous rock slopes (Jura, the valleys of the Saône, Meuse, Moselle and Rhine and the neighbourhood of Basle)
- 31.88 Residual Juniperus communis formations on calcareous heaths or grasslands
- 31.842 Mountain Genista purgans formations.

#### Mediterranean

- 32.13 Juniper formations: the various sub-types (32.131 to 32.135)
- 32.17 Matorral with Zyziphus
- 32.18 Matorral with Laurus nobilis
- 32.2 Thermo-Mediterranean and pre-steppe brush:  
various types: 32.216, 32.217, 32.21, 32.22, 32.23, 32.24, 32.25 and 32.26.

- 33 Phrygana
  - 33.1 Western Mediterranean cliff-top associations (Astragalo - Plataginetum subulatae)
  - 33.3 Low Thorny formations of Greece (Cisto - Micromerletea "Sarcopoterleta ilaspinosi")
  - 33.4 Cretan formations (Euphorbieto - Verbasclon)

NATURAL AND SEMI-NATURAL GRASSLAND FORMATIONS

Natural grasslands

- 34.1 Karstic "barren" grasslands (3411) or xeric sands (34.12)
- 34.2 Calaminarian grasslands (rare and endemic, in central Europe)
- 36 Alpine and boreal grasslands
  - 36.314 Siliceous Festuca eskia grasslands of the Pyrennes (endemic)
  - 36.32 Siliceous alpine and boreal grasslands of the Scottish Highlands (endemic)
  - 36.36 Siliceous Festucetea indigestae Iberian grasslands
  - 36.4 Alpine calcareous grasslands: all types from 36.41 to 36.45
  - 36.5 Macaronesian sub-alpine grasslands

Abandoned former grazing land (and facies where bushes grow)

- 35.1 On siliceous substrates
  - 35.11 Hautes Chaumes (Vosges, Black Forest, Jura, etc.)
  - 35.12 sub-mountainous (Nardus grasslands)
- 34.3 On calcareous substrates (Festuco-Brometea)(sites of remarkable orchids)
  - 34.34, 34.35 and 34.36
- 34.5 Pseudo-steppe with grasses and annuals

Scierophyllous grazed forests (dehesas in Spain)

- 32.11 Quercus suber and/or Q. ilex

Semi-natural tall-herb grasslands

- 37 All types especially Molinion (37.3 and 37.4). Humid grasslands with Cnidion venosus

RAISED BOGS AND MIRES AND FENS

Sphagnum acid bogs (51)

- 51.1 Active ombrogenous bogs
  - 51.11 Oligotrophic (Sphagnion)
  - 51.12 Transitional types (Erico-Sphagnion)
- 54.6 Wet depressions on peat (Rhynchosporion)
- 52 Blanket bogs
  - Types 52.1 and 52.2

Calcareous fens (53, 54)

- 53.3 Calcareous fens with Caricion davallianae (53.31) and Cladietum marisci (53.32)
- 54.2 Alkaline fens (54.21 and 54.22)
- 54.12 Petrifying springs (Cratoneurion)
- 54.3 Alpine pioneer formations of non-peaty soils (Caricion bicoloris-atrofuscae)

ROCKY HABITATS AND CAVES

Scree (61)

- 61.1 Siliceous with sub-types 61.11 and 61.12
- 61.2 Eutric with sub-types 61.21, 61.22 and 61.23
- 61.3 Western Mediterranean region
- 61.4 Balkan region, with sub-types 61.41 and 61.42
- 61.5 and 61.6 Medio-European siliceous (61.5) and calcareous (61.6)

Chasmophytic vegetation on rocky slopes (62)

- 62.1 Calcareous, with sub-types 62.11 to 62.19, also 62.1A
- 62.2 Silicicolous, with sub-types 62.21 to 62.28
- 62.3 Pioneer vegetation of rock surfaces
- 62.4 Bare calcareous rocks (Ireland, Great Britain)

Caves not open to the public (65)

Fields of lava and natural excavations (lava tubes)

WOODLANDS

(Sub)natural woodland vegetation comprising indigenous and spontaneous species forming forests of tall trees, with typical undergrowth, and meeting the following criteria:

- rare and residual in their potential area
- containing endemic or threatened species
- important for reasons of protection.

Forest of temperate Europe

- 41.11 Central European acidophilous beech forest with woodrush (Luzulo - Fagion)
- 41.12 Beech forests with holly and Taxus, rich in epiphytes (Brittany)
- 41.13 Neutrophilous beech forest with wood melick (Asperulo - Fagion)
- 41.15 Sub-alpine beech woods with maple and Rumex arifolius (Vosges, Black Forest, Jura, Massif Central, West Pyrenees); protective forests
- 41.16 Calcareous beech forest (Cephalenthero - Fagion)
- 41.24 Oak-hornbeam forests with Stellaria (Stellario - Carpinetum)
- 41.26 Oak-hornbeam forests with Galium (Gallo - Carpinetum)
- 41.51 Old acidophilous oak woods with beech on the sandy plains by the North Sea

- 41.53 Old oak woods with holly and Blechnum in the British Isles
- 41.4 Ravine and slope mixed forests (Tilio - Acerion)
- 44.3 Residual ash-alder woods and sub-types 44.31, 44.32 and 44.33
- 44.A Bog Woodland (A1, A2, A3, A4)

Mediterranean deciduous woodland

- 41.18 Southern Apennine beech forests (Geranio-Fagion)
  - 41.181 Taxus (Monte Gargano)
  - 41.184 Abies nebrodensis (remnants) (see 42.1A)
- 41.1A and B Hellenic beech forests with Abies borisii regis (41.1A and 42.17) with Quercion frainetto (41.1B)
- 41.5A Gallicio-Portuguese pedunculate oak woods and Quercion pyrenalcae
- 41.85 Fraxinus angustifolia woods and sub-types
- 41.85 Quercus trojana woods of Italy and Greece
- 44.17 Salix alba and Populus alba galleries
- 44.44 Po valley pedunculate oak woods and Polygonatum (sole example)
- 41.77 Quercus faginea woods (Iberian peninsular)

Sclerophyllous mediterranean forests - endemic or residual

- 45.1 Oleo-Ceratonion forests
- 45.2 Quercion suberus forests
- 45.3 Quercion ilicis forests
- 41.7C Cretan Quercion brachyphyllae forests
- 45.5 Quercus macrolepis woods
- 45.6 Macaronesian laurel forests (Laurus, Ocotea) and sub-types 45.61, 45.62 and 45.63
- 45.7 Palm groves in Phoenix (Crete)
- 45.8 Forests of Ilex aquifolium

Coniferous woodland

Alpine and sub-alpine

- 42.2 Spruce dominated (Vaccinio-Picetea) in particular 42.22, 42.33
- 42.3 Alpine Laricio-Cembraion forests and sub-types 42.31 and 42.32 (protective forests)
- 42.4 Pinus uncinata forests in the Pyrenees and Western Alpine

Mediterranean mountains

- 42.14 Abies alba plantations in the Apennines (Tuscany) (one virtually unspoilt example)
- 42.18 Abies cephalonica plantations (Greece)
- 42.19 Abies pinsapo plantations (Andalusia)
- 42.6 Mediterranean pine-groves with endemic black pines and sub-types 42.61 to 42.66
- 42.8 Mediterranean pine groves with endemic Mesogean pines and sub-types 42.81 to 42.85
- 42.A6 Tetraclinis articulata woods (Andalusia) (endemic)
- 42.A7 Yew woods and sub-types A71, A72, A73
- 42.9 Macaronesian pine forests (endemic)
- 42.A Endemic Mediterranean juniper woods
  - 42.A2 Juniperus thurifera (E)



- 42.A3 Juniperus excelsa (Gr)
- 42.A4 Juniperus foetidissima (Gr)
- 42.A5 Juniperus drupacea (Gr)
- 42.A8 Juniperus macaronesiensis

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ANNEX VI

FOR THE TRANSMISSION OF INFORMATION ABOUT  
THE CLASSIFICATION OF SPECIAL PROTECTION AREAS

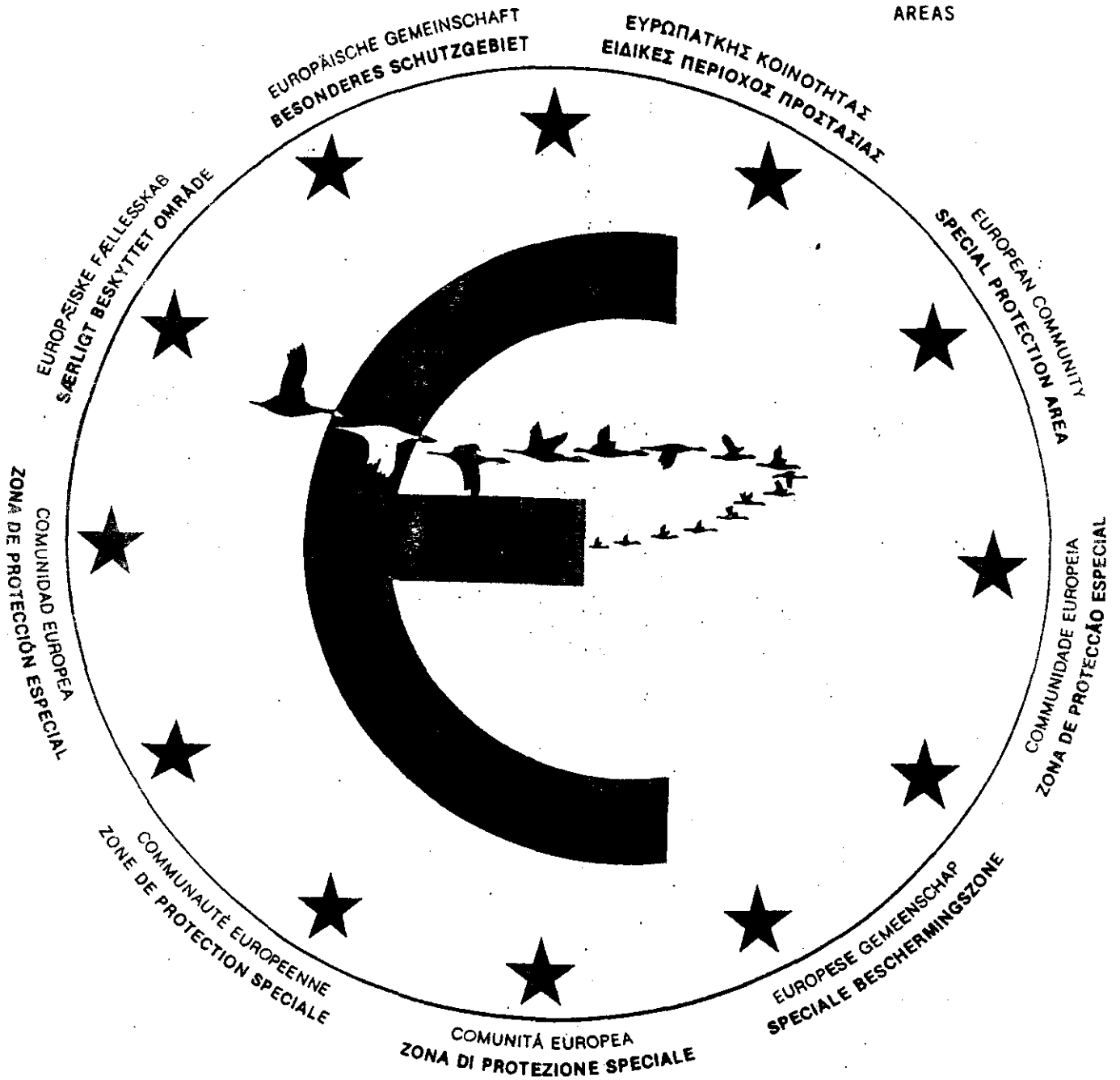
1. Name of the site.
2. Region.
3. Habitat types (according to Annex IV).
4. Protection status of the site according to national classification (indicated in full in national language).
5. Administration or organization responsible for the management of the site.
6. Surface of the site.
7. Map / limits of the site.
8. Annex I species and other noteworthy species according to national/regional 'red lists' (indicated in full and by numbers when appropriate).
9. Human activities.
10. Motivation
11. Respondent.

ANNEX VII

Types of distinct landscape features of outstanding  
local importance to wildlife

- Valley corridors (springs and exits of underground rivers, streams, reed beds, bodies of water)
- Coastal staging posts (natural inshore reefs, rocky offshore islets, coastal cliffs)
- Bodies of water
- Fallow land and bush
- Wooded farmland (hedgerows, spinneys, field trees)

NOTICES SHOWING CLASSIFICATION  
OF SITES AS SPECIAL PROTECTION  
AREAS



ANNEX XI: INVENTORIES AND RESEARCH

1. National + regional lists of threatened species.
2. National + regional + local inventories of sites of importance for the conservation of habitats, fauna and flora.
3. Behavioural and physiological reactions of threatened species to anthropogenic or other changes.
4. Population dynamics of threatened species.
5. Management of habitats.
6. Rehabilitation of destroyed or degraded habitats.
7. Evaluation of the practicability of schemes aimed at integrating special protection areas into areas of intensive economic activity.
8. Collection, storage and dissemination of practical knowledge and traditions relating to the sustainable use of biological resources.
9. Transport corridors between different ecosystems as a major contribution to the conservation of species.
10. The contribution of teledetection in the monitoring of the status of, or threats to special protection areas.
11. Establishment of a computerized nomenclature of the wild flora and fauna of the Member States,
12. Preparation and implementation of conservation strategies.
13. Disturbing effects of exploitation.

COMPETITIVENESS AND EMPLOYMENT IMPACT STATEMENT

I. What is the main reason for introducing the measure ?

The 8 draft annexes aim to complete the proposal for a Council directive on the protection of natural and semi-natural habitats and of wild fauna and flora, for which the Task Force has already given its approval on 3/6/88 (note no. 001625).

II. Features of the businesses in question. In particular:

(a) Are there many SMEs ?

The enterprises concerned will be mainly agricultural ones, since the directive will deal essentially as it appears clearly from annexes IV and VII, with conservation of natural habitats in predominantly rural areas.

(b) Are they concentrated in regions which are :

- ( i. eligible for regional aid in the Member States ?
- ( ii. eligible under the ERDF ?

The regions most likely to be affected are objectives 1 and 5b regions.

(III. What direct obligations does this measure impose on businesses ?

(IV. What indirect obligations are local authorities likely to impose on businesses ?

The direct and indirect obligations will vary according to the type of measures to be taken with a view to ensuring maintenance or reestablishment of a favourable conservation status for species or habitat types specified in annexes I and IV. For agricultural enterprises, this will mean avoiding or reducing to a minimum the use of chemical fertilizers, pesticides and herbicides; for crafts or industries, this will mean avoiding or limiting their pollution emission and waste dumping in the areas concerned.

V. Are there any special measures in respect of SMEs ?  
Please specify.

Even though the major part of the industrial fabric in the main areas affected by annexes I, IV and VII are likely to be composed of SMEs, no special measure is foreseen in respect of SMEs.

VI. What is the likely effect on :

(a) the competitiveness of businesses ?

The likely effect of direct or indirect obligations following implementation of the directive and its annexes on the competitiveness of business will vary depending on provisions already taken by the SMEs. It is likely to be important in cases where the SMEs are allowed to operate according to norms that are less strict than those set in Community environmental legislation, in particular with regard to emissions in the air and water. The SMEs will also be affected, to a lesser degree, in cases where the principle laid down in the "impact assessment" directive (760/85) foreseeing the definition of compensatory measures with a view to correcting negative effects on the environment of a determined project is applied.

(b) employment ?

The measures carried out to implement the directive and its annexes could create employment in the following fields :

Agro-tourism, creation and management of natural protected areas, promotion of productive and commercial businesses.

VII. Have both sides of industry been consulted ?

Please indicate their opinions.

Both sides of industry will be consulted within the framework of the Economic and Social Committee.

In general positive comments (unions, employers).

Nil.

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