SECOND REPORT

by the Committee on the Environment, Public Health and Consumer Protection

on the proposal from the Commission to the Council for a directive on the protection of natural and semi-natural habitats and of wild fauna and flora (COM (88) 381 final + COM(90) 59 final - Doc. C 3-34/89)

Rapporteur: Mr H.J. MUNTINGH
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By letter of 30 September 1988 the President of the Council of the European Communities consulted the European Parliament, pursuant to Article 130s of the EEC Treaty, on the proposal from the Commission of the European Communities to the Council for a directive on the protection of natural and semi-natural habitats and of wild fauna and flora.


At its meeting of 27 July 1989 the Committee on the Environment, Public Health and Consumer Protection appointed Mr Muntingh rapporteur.

The committee considered the proposal and the draft report at its meetings of 29 August 1989 and 25 September 1989.

At the latter meeting the committee decided by 26 votes in favour with 1 abstention to recommend to Parliament that it approve the Commission proposal subject to the following amendments.

The draft legislative resolution as a whole was adopted by 26 votes in favour with 1 abstention.

The following took part in the vote: Schleicher, acting Chairman and Vice-Chairman; Iversen, Vice-Chairman; Muntingh, rapporteur; Alavanos, Avgerinos, Baget Botso (deputizing for Bombard), Bowe, de la Camara Martinez, Canavarro, Capucho (deputizing for Pereira), Chanterie, Diez de Riviera Icaza, Di Rupo, Florenz, Hughes (deputizing for Green), Lannoye (deputizing for Monnier-Besombes), Oomen-Ruitjen (deputizing for Maij-Weggen), Pagoropoulos (deputizing for Jensen), Partsch, Pimenta, Pollack, Roth-Behrendt, Titley (deputizing for Schmid), Vernier, Vertemati, Weber and Wijsenbeek (deputizing for Bertens).

The report was tabled with Sessional Services on 29 September 1989.

At the sitting of 12 October 1989 the report was referred back to the Committee on the Environment, Public Health and Consumer Protection.

The committee reconsidered the proposal and the second draft report at its meetings of 17 July and 17 October 1990.

At the latter meeting the committee decided unanimously to recommend to Parliament that it approve the Commission proposal subject to the following amendments.

The draft legislative resolution was also adopted unanimously.

The following took part in the vote: Collins, chairman; Muntingh, rapporteur; Amendola, Björnvig, Bombard, Canavarro, Ceci, Chanterie, Crampton (for Di Rupo), Diez de Rivera, Douste-Blazy, Guidolin, Jensen, Monnier-Besombes, Oomen-Ruijten, Partsch, Pimenta, Pollack, Quistorp, Roth-Behrendt, Schwartenberg, Smith, Valverde, Vernier and Vertemati.

The report was tabled with Sessional Services on 17 October 1990.

The deadline for tabling amendments will appear on the draft agenda for the part-session at which the report is to be considered.

Text proposed by the Commission of the European Communities (1)


Preparatory act, p. 2.

Whereas in view of the urgent need for action to protect certain threatened habitats, it is necessary that the ten most important areas in the Community be identified and classified as special protection areas within a very short period of time.

Preparatory act, p. 3

Whereas such classification of special protection areas should not mean that excessive exploitation of nature should be allowed in non-protected areas and whereas appropriate land management also outside the classified areas should ensure the sustainability of the biological systems connecting these areas;

Amendments by the Committee on the Environment, Public Health and Consumer Protection

Amendment No. 1


Amendment No. 2

Preparatory act, p. 2 to be changed as follows:

Whereas in view of the urgent need for action to protect certain threatened habitats, it is necessary that for the most important areas in the Community for each species and habitat listed in Annex I, and for each habitat listed in the annexes be identified within a very short period of time.

Amendment No. 3

Preparatory Act p. 3 to be supplemented as follows:

Whereas such classification of special protection areas should not mean that excessive exploitation of nature should be allowed in non-protected areas and whereas appropriate land management also outside the classified areas should ensure the sustainability of the biological systems connecting these areas. In particular Regulation No. 1760/87 (support for areas that are sensitive from the point of view of protection of the environment and natural resources, nature conservation and preservation of the countryside) and amendments thereto should be used to further the objective of conservation of threatened species and habitats, in particular the arrangements for the set-aside of agricultural land proposed by the Commission should be used to give land users and the holders of other land rights in areas to be set aside the opportunity to grow crops which have no commercial uses but which will help conserve the flora and fauna and can provide shelter and food for the species found in the land to be set aside:

Whereas exploitation of certain species whose biological status so requires, should be subject to a management plan, and whereas with the framework of such management plans no undue burdens should be placed on industry or commerce;

Amendment No. 4

Preparatory act p. 4 to be changed as follows:

Whereas exploitation of certain species, whose biological status so requires, should be subject to a management plan; (19 words deleted).

Amendment No. 5

After last consideration a new consideration to be added:

Whereas all necessary measures shall be taken to ensure that the Commission will meet the personnel and financial requirements to fulfil its role in the implementation of the Directive.
The aim of this Directive is to conserve natural and semi-natural habitats and wild fauna and flora in the European territory of the Member States to which the Treaty applies, including maritime areas under the sovereignty or jurisdiction of the Member States.

Article 2

Member states shall take the requisite measures to maintain the abundance and diversity of wild fauna and flora at a level which corresponds in particular to ecological, scientific and cultural requirements and the needs of sub-species, varieties, forms and populations at risk locally, while taking account of economic and recreational requirements.

Amendment No. 6

Article 1 to be changed as follows:

The aim of this Directive is to conserve natural and semi-natural habitats and wild fauna and flora at a satisfactory conservation status in the European territory of the Member States to which the Treaty applies, including maritime areas under the sovereignty or jurisdiction of the Member States.

Amendment No. 7

Article 2 to be changed as follows:

Member states shall take the requisite measures to maintain the abundance and diversity of wild fauna and flora at a level which corresponds in particular to ecological, scientific and cultural requirements and the needs of sub-species, varieties, forms and populations at risk locally. Economic and recreational requirements shall take account of these needs and measures.
f) "conservation status" means: the sum of the influences acting on a species that may affect its long term distribution and abundance or the sum of influences acting on a habitat which may affect its long term distribution and integrity.

Conservation status will be taken as "satisfactory" for a species when:

1. population dynamics data indicate that the species is maintaining itself on a long-term basis as a viable component of its ecosystems;
2. the range of the species is neither currently being reduced, nor is likely to be reduced on a long-term basis;
3. there is, and will be in the foreseeable future, sufficient habitat to maintain the population of the species on a long-term basis;
4. the distribution and abundance of the species' approach historic coverage potentially suitable ecosystems exist and to the extent consistent with wise wildlife management.

The conservation status of a species will be taken as "unsatisfactory" if any of the conditions set out in subparagraphs (1)-(4) is not met.

Conservation status will be taken as "satisfactory" for a habitat when:

1. the extent of a habitat is neither currently being reduced, nor is likely to be reduced on a long term basis;
2. the habitat is not currently undergoing degradation, nor is likely to become degraded on a long term basis, within the areas where it currently exists;
3. the distribution and abundance of the habitat is being maintained at a level which is consistent with long term resource management.

The conservation status of a habitat will be taken as "unfavorable" if any of the conditions set out in the subparagraphs (1)-(3) above is not met.
Amendment No. 9

Article 3 gl, new

g) Special Protection Area means:

Any area notified to the Commission as an area which is important to maintain or achieve a satisfactory conservation status for any threatened species mentioned in Annex I or threatened habitat mentioned in Annex IV.

Special Protection Areas thus notified shall contribute to the network as envisaged in Article 6 of this Directive; and the Member States shall be responsible for the precise form of protected status to be applied and the conservation measures to be applied within SPA's in order to maintain or to enhance the conservation status of, in particular, those species and habitats for which the areas are important.
Article 5.1

1. Habitats of the species specified in accordance with Annex I and the types of habitat specified in accordance with Annex IV shall be the subject of special conservation measures in order to ensure the maintenance of the species concerned at a satisfactory level in their area of natural distribution as well as the conservation of the habitats concerned in all the regions where they occur.

Article 5.2

2. Member States shall, within two years after the expiry of the period laid down in Article 27, classify as special protection areas those areas which they consider correspond to the criteria set out in Annex V(a). If, after the expiry of that period, for each species and habitat listed in Annex I and each habitat listed in Annex IV, the most important areas in the Community have not been classified by Member States, the remaining areas to be classified shall be identified by the Commission during the following year in accordance with the procedure laid down in Article 23, and shall be classified by the Member States accordingly within one year, following the decision of the Commission.

Amendment No. 10

Article 5.1 to be changed as follows:

1. Habitats of the species specified in accordance with Annex I and the types of habitat specified in accordance with Annex IV shall be the subject of special conservation measures in order to ensure the maintenance or re-establishment of the species concerned at a satisfactory conservation status in their area of natural distribution as well as the conservation of the habitats concerned in all the regions where they occur.

Amendment No. 11

Article 5.2 to be changed as follows:

2. Member States shall, within two years after the expiry of the period laid down in Article 27, classify as special protection areas those areas which they consider correspond to the criteria set out in Annex V(a). If, after the expiry of that period, for each species and habitat listed in Annex I and each habitat listed in Annex IV, the most important areas in the Community have not been classified by Member States, the remaining areas to be classified shall be identified by the Commission during the following year in accordance with the procedure laid down in Article 23, and shall be classified by the Member States accordingly within one year, following the decision of the Commission.
Article 5.3

3. Within, at the latest, eight years after the expiry of the period laid down in Article 27, Member States shall classify as special protection areas territories sufficient in number and size to ensure:

i) the maintenance of the species specified in accordance with Annex I at a satisfactory level in all regions where they occur,

ii) the protection of the threatened habitats specified in accordance with Annex IV with their associated fauna and flora in all regions where they occur.

In classifying these areas, Member States shall apply in particular the criteria set out in Annex V(b). They shall at least take into account the timing and priorities set out in the Joint Programme mentioned in Article 6.2.

Amendment No. 12

Article 5.3 to be changed as follows:

3. Within, at the latest, four years after the expiry of the period laid down in Article 27, Member States shall classify as special protection areas territories sufficient in number and size to ensure:

i) the maintenance of the species specified in accordance with Annex I at a satisfactory conservation status in all regions where they occur,

ii) the protection of the threatened habitats specified in accordance with Annex IV with their associated fauna and flora in all regions where they occur.

In classifying these areas, Member States shall apply in particular the criteria set out in Annex V(b). They shall at least take into account the timing and priorities set out in the Joint Programme mentioned in Article 6.2.

Amendment No. 13

Article 6.1 to be changed as follows:

1. Member States shall assist the Commission in the creation of a European Network of classified special protection areas named "NATURA 2000". The European Network shall consist of...

.... to which this Directive applies.

Amendment No. 14

Article 6.1 to be changed as follows:

1. Member States shall assist the Commission in the creation of a European Network of classified special protection areas named "NATURA SEMPER". The European Network shall consist of...

.... to which this Directive applies.
Article 6.2

2. Within 2 years after the expiry of the period laid down in Article 27, the Commission shall adopt a Joint Programme for the development and strengthening of the European Network in accordance with the procedure laid down in Article 23. The Joint Programme shall be reviewed at the end of the eight-year period specified in Article 5.3. The Joint Programme shall furthermore specify the measures to be taken at the appropriate levels of competence by the Community and the Member States in order to back up the implementation of the Directive. Such measures may include the requirements for protection, training infrastructure and management plans, research and studies, field experiments, monitoring schemes and necessary resources. In the Joint Programme the Commission shall formulate a proposal to provide financial support to re-enforce national efforts to ensure the conservation of all sites declared under Article 5. Programmes concerning the conservation, management, maintenance or re-establishment of habitats of flora and fauna in sites classified under Article 5 shall automatically be eligible for support as environmentally sensitive areas under Council Regulation (EEC) No. 1760/92 and amendments to that Regulation.
Article 11(a)

(a) The following subparagraphs are added to Article 4.2:

"However, all projects which are located in or are likely to affect the conservation potential of a special protection area forming part of the European Network established under Directive 79/409/EEC or any other area meeting the criteria mentioned in Annex VI(a) and VI(b) of that Directive shall be made subject to an assessment in accordance with Articles 5 to 10.

All development plans or programmes likely to affect special protection areas shall be made subject to an equivalent assessment."

Amendment No. 15

Article 11(a) to be changed as follows:

(a) The following subparagraphs are added to Article 4.2:

"However, all projects which are located in or are likely to affect the conservation potential of a special protection area forming part of the European Network established under Directive 79/409/EEC or any other area meeting the criteria mentioned in Annex VI(a) and VI(b) of that Directive shall be made subject to an assessment in accordance with Articles 5 to 10.

All development plans or programmes likely to affect special protection areas shall be made subject to an equivalent assessment."

Amendment No. 16

A new Article 11(c) to be added:

Member States shall also introduce measures under Title V of Regulation 1760/87 (Aid in areas sensitive as regards protection of the environment and of natural resources and as regards preservation of the landscape and the countryside) - Environmentally Sensitive Areas - to protect natural and semi-natural habitats and wild fauna and flora and those features of the landscape listed in Annex VII, within three years of the notification of this Directive.

Amendment No. 17

Article 12.1 to be changed as follows:

1. Member States shall take the requisite measures to establish a comprehensive system of protection for animal species specified in accordance with Annex II (a), prohibiting in particular:
Article 12.1 (b)

Deliberate disturbance, particularly during the period of breeding, rearing and hibernation, insofar as disturbance would be significant in relation to the objectives of this Directive;

Article 12.1 (d)

(d) the keeping and sale of specimens taken from the wild.

Article 14.2

2. Exploitation, whether commercial or otherwise, of the species specified in accordance with Annex III (a) should only be permitted of species whose populations is shown to be stable or increasing and exploitation must be sustainable. Such exploitation shall be subject to a management plan with the aims specified in Annex VIII in order to keep wild populations of those species at a satisfactory level and to avoid causing local disappearance or serious disturbance to populations.

Amendment No. 18

Article 12.1 (b) to be changed as follows:

Deliberate disturbance, particularly during the period of breeding, rearing, hibernation and migration, insofar as disturbance would be significant in relation to the objectives of this Directive;

Amendment No. 19

Article 12.1 (d) to be changed as follows:

(d) the keeping, transport, sale or exchange, or offering for sale or exchange of specimens taken from the wild.

Amendment No. 20

Article 14.2 to be changed as follows:

2. Exploitation, whether commercial or otherwise, shall be restricted to the species specified in accordance with Annex III (a) and shall only be permitted of species whose populations is shown to be stable or increasing and exploitation must be sustainable. Such exploitation shall be subject to a public management plan with the aims specified in Annex VIII in order to maintain wild populations of those species at a satisfactory conservation status and to avoid causing local disappearance of or serious disturbance to other populations or habitats.
Article 14.5

5. Member States shall, where appropriate, take other measures, in particular:
(a) closed seasons and/or other procedures regulating exploitation;
(b) temporary or local prohibition of exploitation, in order to restore satisfactory population levels;
(c) regulation of the sale, keeping for sale, transporting for sale or offering for sale of specimens.

Article 16

Member States shall take the requisite measures to ensure that inshore fishing and protection of crops with nets are not detrimental to the conservation of threatened species specified in accordance with Annex II, and, as far as possible, other species of wild fauna and flora.

 Amend. No. 21

Article 14.5

5. Member States shall, where appropriate, and eventually at the instigation of the Commission, take other measures, in particular:
(a) closed seasons and/or other procedures regulating exploitation;
(b) temporary or local prohibition of exploitation, in order to restore satisfactory conservation status;
(c) regulation of the sale, keeping for sale, transporting for sale or offering for sale of specimens.

 Amend. No. 22

Article 16 to be changed as follows:

Member States shall take the requisite measures to ensure that (1 word deleted) fishing and protection of crops with nets are not detrimental to the conservation of threatened species specified in accordance with Annex II, and, as far as possible, other species of wild fauna and flora.

 Amend. No. 23

Article 17.1 (e)

(e) to permit, under strictly supervised conditions, on a selective basis and to a limited extent, the taking or keeping of certain wild animals and plants in small numbers.

 Amend. No. 24

Article 17.1 (e) to be supplemented as follows:

(e) to permit, under strictly supervised conditions, on a selective basis and to a limited extent, the taking or keeping of certain wild animals and plants in small specified numbers.
Article 17.3 (b)

(b) the means, arrangements or methods authorized for capture or killing;

Amendment No. 24

Article 17.3 (b) to be supplemented as follows:

(b) the means, arrangements or methods authorized for capture or killing and why these form the most satisfactory solution.

Amendment No. 25

Article 20.3

3. Member States and the Commission shall promote multi-disciplinary analysis and evaluation with a view to increasing scientifically-based knowledge to which the measures carried out under this Directive can be anchored. Such information should be made available to the public.

3. Member States and the Commission shall promote multi-disciplinary analysis and evaluation with a view to increasing scientifically-based knowledge to which the measures carried out under this Directive can be anchored. In particular, the Commission shall undertake studies to draw up an inventory of sites meeting the criteria listed in Annex V(a) and V(b) and shall keep this inventory up to date. Such information shall be made available to the public.
Article 21

Any amendment to Articles of this Directive shall, in accordance with the second paragraph of Article 130S of the Treaty, be decided by the Council by qualified majority.

Article 23.1

The Commission shall be assisted by a Committee for the adaptation of this Directive to technical and scientific progress consisting of representatives of the Member States and chaired by a representative of the Commission.

Amendment No. 26

Article 21 to be changed as follows:

Any amendment to Articles of this Directive, as well as the first full proposal for the Annexes, shall, in accordance with the second paragraph of Article 130S of the Treaty, be decided by the Council by qualified majority.

Amendment No. 27

Article 23.1 to be supplemented as follows:

no change

.... of the Commission.
The minutes of the Committee meetings shall be made available on request to Members of the European Parliament and concerned non-governmental organizations.
Article 23.2

The representative of the Commission shall submit to the Committee a draft of the measures to be taken. The Committee shall deliver its opinion on the draft within a time limit which the Chairman may lay down according to the urgency of the matter. The opinion shall be delivered by the majority laid down in Article 148.2 of the Treaty in the case of decisions which the Council is required to adopt on a proposal from the Commission. The votes of the representatives of the Member States within the Committee shall be weighted in the manner set out in that Article. The Chairman shall not vote.

Amendment No. 28

Article 23.2 to be changed and supplemented as follows:

The representative of the Commission shall submit to the Committee a draft of the measures to be taken. The Parliament may propose measures to be annexed to the Commission's draft. The Committee shall deliver its opinion on the draft within a time limit which the Chairman may lay down according to the urgency of the matter. The opinion shall be delivered by the majority laid down in Article 148.2 of the Treaty in the case of decisions which the Council is required to adopt on a proposal from the Commission. The votes of the representatives of the Member States within the Committee shall be weighted in the manner set out in that Article. The Chairman shall not vote.

Any international or national agency or body qualified in protection, conservation and management of species or habitats, which has informed the Commission of its desire to be present at meetings of the Committee, shall be admitted unless a majority of Member States present object. Meetings may, if desired by the representatives of Member States, include parts held in camera.
Article 24

1. Member States shall take all necessary measures to ensure the monitoring of the biological communities and the populations of species specified in accordance with Annex I and in the areas classified under Article 5. Member States shall send the Commission the information resulting from monitoring, so that it may take appropriate initiatives with a view to the coordination necessary to ensure the fulfilment of the objectives of this Directive.

Amendment No. 29

Article 24 to be supplemented as follows:

1. Member States shall take all necessary measures to ensure the monitoring of the biological communities and the populations of species specified in accordance with Annex I and in the areas classified under Article 5. Member States shall send the Commission the information resulting from monitoring, so that it may take appropriate initiatives with a view to the coordination necessary to ensure the fulfilment of the objectives of this Directive. The Commission shall make the results from monitoring available on request.

Amendment No. 30

After SUPPLEMENTARY PROVISIONS and before Article 25 a new article 24 bis to be inserted:

Article 24 bis

The Commission will take all necessary measures to ensure that the personnel and financial requirements to fulfil the Communities role in the implementation of this Directive will be met.
Article 25(b) to be changed as follows:

Forbid the introduction into the wild of any species which do not occur naturally in the wild state in that region, unless it is proved that it is necessary and will not prejudice the local fauna and flora or its natural habitats. In this connection they shall consult the Commission.

Amendment No. 32

Article 26 to be changed as follows:

Application of measures taken pursuant to this Directive shall not lead to any deterioration in the present situation as regards the conservation of species and communities of wild fauna and flora referred to in Article 1.
Amendment No. 33

A new Article 27.3 to be added:

Governmental and non-governmental organizations legally established in a Member State or States, shall have right of access to National Courts in order to seek to obtain the enforcement of any provision of this Directive.
CARNIVORA
Canidae
Canis lupus
Ursidæ
Ursus arctos
Mustelidae
Lutra lutra
Mustela lutreola
Mustela nivalis bocamela
Felidae
Lynx lynx
Lynx pardina
Phocidae
*Monachus monachus

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

CETACEA
Tursiops truncatus
Phocoena phocoena

REPTILES
TESTUDINES
Testudo hermanni
Testudo graeca
Testudo marginata
Cheloniidae
Caretta caretta

SAURIA
Lacertidae
*Lacerta agilis*
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

CAUDATA
Salamandridae
Chioglossa lusitanica
Hertensielia luschani
Salamandra aurora
Triturus cristatus
Proteidae
Proteus anguinus
Plethodontidae
Speleomantes ambrosii
Speleomantes flavus
Speleomantes genii
Speleomantes imperialis
Speleomantes supermontes

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

FISH

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

ACIPENSERIFORMES
Acipenseridae
Acipenser naccarii
Acipenser sturio
Huso huso

ATHERINIFORMES
Cyprinodontidae
Aphanius iberus
Valentinia hispanica
SALMONIFORMES
Coregonidae
Coregonus oxyrhinchus
Salmonidae
Hucho hucho
Salmo salar
Salmo (trutta) marmoratus
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 rutilus prespensis
Rutilus spartiaticus
Rutilus arcasii
Rutilus macrolepidotus
Rutilus lemmingii
Rutilus macedonicus
Rutilus Risii meidingeri
Rutilus alburnoides
Phoxinellus pleurobipunctatus pleurobipunctatus
Phoxinellus pleurobipunctatus beoticus
Phoxinellus stymphalicus
Phoxinellus adspersus prespensis
Leuciscus leuciscus burdigalensis
Leuciscus lucomonis
Leuciscus souffla
Leuciscus idus stagnalis
Rhodeus sericus avarus
Scardinius graecus
Chondrostoma nasus prespense
Chondrostoma nasus vardarense
Chondrostoma soetta
Chondrostoma polylepis
Chondrostoma genei
Chondrostoma lusitanicum
Chondrostoma toxostoma
Gobio gobio bulgaricus
Gobio gobio feraeensis
Gobio albinomatus elimeius
Gobio uranoscopos
Iberocypris palaciosi
Barbus barbus gallicus
Barbus barbus thessalus
Barbus plebejus euboicus
Barbus plebejus prespensis
Barbus plebejus strumicae
Barbus meridionalis
Barbus capito alboniger
Barbus capito graellsii
Barbus capito haasi
Barbus capito bocagei
Barbus comiza
Aspius aspius
Cobitidae
Cobitis conspersa
Cobitis larvata
Cobitis trichonica
Cobitis taenia
Misgurnus fossilis
Sabanejewia laurata

GADIFORMES
Gadidae
Lota lota

PERCIFORMES
Percidae
Gymnocephalus schraetzer
Zingel asper
Zingel streber
Zingel zingel
Gobiidae
Pomatschistus canestrini
Pomatschistus 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

INTERTEBRATES

ANTHROPODS

ANACHNIDA
Mesorhine calperana
CRUSTACEA
   DECAPODA
   Austropotamobius pallipes
   Thyphlocaris salentina

INSECTA

COLEOPTERA
   Acmaeodera revelieri
   Acmaeodera tassii
   Agrius curtulus
   Agrius massanensis
   Agrius perisi
   Akimerus schaefferi
   Ampedus quadrisignatus
   Anthaxia castilliana
   Anthaxia ceballosi
   Anthaxia espanolii
   Anthaxia segurensis
   Anisurus quercus
   Brachyleptura strangulata
   Buprestis bertheloti
   Buprestis sanguinea
   Buprestis splendens
   Callimellum abdominale
   Carabus olympiae
   Cerambyx cerdo
   Chalcophora intermedia
   Clinidium canaliculatum
   Cornumutila quadrivittata
   Cucujus cinnaberinus
   Cucujus haematodes
   Dytiscus latissimus
   Glaphyra marmottani
   Graphoderus bilineatus
   Leptura palmi
   Leioderus kollari
   Leiopus punctulatus
   Limoniscus violaceus
   Morimus funereus
   Nustera distigma
   Osmotherma eremita
   Oxypeurus nodieri
   Oxypeurus pinicola
   Phaenops sumptuosus
   Pogonochoerus eugeniae
   Ropalopus insubricus
   Rhysodes germari
   Rhysodes sulcatus
   Rosalia alpina
   Saphanus piceus

DIPTERA
   Conophora festiva
   Keroplatius tipuloides
   Psoros abdominalis
Spilomyia manicata
Spilomyia saltuum

HYMENOPTERA
Orussus unicolor

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

MANTODEA
Apteromantis aptera

ODONATA
Coenagrion coeruleascens
Coenagrion hylas
Cordulegaster trinacriae
Gomphus graminis
Leucorrhinia pectoralis
Lindenia tetraphylla
Macromia splendens
Onychogomphus costae
Onychogomphus uncatus
Ophiogomphus cecilia
Oxygastra curtisi

ORTHOPTERA
Baetica ustulata

MOLLUSCS

GASTROPODA
Vertigo angustior
Vertigo genesii
Vertigo geyeri
Vertigo moulisiana
Caseolus calculus
Caseolus commixta
Caseolus sphacelus
Planula leucostoma
Discus tabellata
Discus defloratus
Discus querinianus
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

PTERIDOPHYTA

ASPIDACEAE
Diplazium caudatum (Cav.) Jermy
*Urophyris quanchleu*

ASPLENIACEAE
Asplenium jahandiezi (Litard.) Rouy

BLECHNACEAE
Woodwardia radicans (L.) Sm.

*DICKSONIACEAE*
*Culcita macrocarpa*

DRYOPTERIDACEAE
Dryopteris corleyi Fraser-Jenks.

HYMENOPHYLLACEAE*
Trichomanes speciosum Willd.

ISOETACEAE
Isoetes boryana Durieu
*Isoetes heldreichii*
Isoetes malinverniana Ces. De Not.

LYCOPODACEAE
Diaphisum issleri (Rouy) J. Holub

MARSILEACEAE
Marsilea batardae Launert
Marsilea strigosa Willd.
Filitaria minuta Durieu ex A. Braun

OXYURGLOSSACEAE
Botrychium matricariifolium A. Braun ex Koch
Botrychium simplex Hitchc.
Ophioglossum polyphylum A. Braun

*PTERIDACEAE*
*Pteris dentata*

GYMNOSPERMAE

*CYCRESSACEAE*
*Tetragonis articulata*

PINACEAE
Abies nobilis (L.) Matue
*Abies alba*
ANGIOSPERMAE

ALISMATACEAE
*Caldesia parnassifolia_
*Damasonium alisma_
Luronium natans (L.) Raf.

AMARYLLIDACEAE
Leucojum nicaense Ard.
Narcissus nevadensis Pugsley
Narcissus scaberulus Henricq.
Narcissus triandrus L. ssp. capax (Salisb.) Webb.
Narcissus viridiflorus Schousboe

APOCYNACEAE
Rhazya orientalis (Decaisne) A. DC.

*ARACEAE_ 
*Biarum davisi_

*BETULACEAE_ 
*Betula humilis_

BORAGINACEAE
Anchusa crispa Viv.
Anchusa litorea Moris
Lithodora nitida (H. Ern) R. Fernandes
*Macrotrum densiflorum_
Myosotis rehsteineri Wartm.
Myosotis ruscinonensis Rouy
Omphalodes littoralis Lehmann
*Onosma elegansismus_
Onosma fastigiata (Br.-B1.) Lacaita ssp. atlantica Br.-B1.
*Onosma psammophila_
Solenanthus albanicus (Degen et al.) Degen Baldacci
Solenanthus stamineus (Desf.) Wettst.
Symphytum cycladense Pawl.

*CALLITRICHACEAE_ 
*Callitriche pulchra_

CAMPANULACEAE
*Asyneuma giganteum_
Azorina vidali (H.C. Watson) Feer
Campanula baumgartenii J. Becker
Campanula sabatia De Not.
Jasione lusitanica A. DC.
Musschia aurea (L.f.) DC.
Musschia wollastonii Lowe
*Symphyandra cretica_
*Trachelium asperuloides_
CAMPHOXYLLACEAE
Armarioia nevadensis Boiss. Reuter
*Armaria provincialis Chaten Halliday
*Callisthe punomarkii
*Eojunthus gallicus
*Eojunthus pulviniformis
*Ianthus rupicola Biv.
Gypsophila papillosa P. Porta
*Hymenaria algavica
Herniaria maritima Link
Lomatogia tavaresiana C. Samp.
Marrubiata tommassini Marches.
Petrocoptis grandiflora Rothe.
Petrocoptis montsicciana O. Bolos Rivas Mart.
Petrocoptis pseudoviscosa Fernandez Casas
*Petrophagia nautcwillii
*Ravenorzia chlorifolia
Silene hifacensis Rouy ex Willk.
Silene holzmannii Heldr. ex Boiss.
Silene mariana Pau
*Silene nevadensis
Silene orphanidis Boiss.
Silene rothmaleri Pinto da Silva
Silene velutina Pourret ex Loisel

CHENOPODIACEAE
*Hussia hirsuta
Halimione pedunculata (L.) Aellen
Kochia saxicola Guss.
*Murcianthera corralloides
Salicornia veneta Pignatti Lausi
*Salsola papillosa

CISTACEAE
Cistus heterophyllum Desf.
Helianthemum alpoides Losa Rivas Goday
Helianthemum caput felis Boiss.
*Helianthemum stimulatum
Duranta major (Willk. Pinto da Silva et al.)
COMPOSITAE

Anacyclus alboranensis Esteve Chueca · Varo
Anthemis glaberrima (Rech. f.) Greuter
Artemisia granatensis Boiss.
Artemisia molinieri Quezel, Barvero et Loisel
Aster pyrenaeus Desf. ex DC.
*Anthemis invuloides*
Carduus myriacanthus Salzm. ex DC.
Carlina diae (Rech. f.) Meusel · Kastner
Centauraea aegialophila Wagenitz
Centauraea balaurica J.N. Rodriguez
Centauraea borjaii Valdes-Berm. · Rivas Godoy
Centauraea citricolor Flont Quer
Centauraea cymbosa Pourret
Centauraea gadorensis C. Blanca
Centauraea heldreichii Halacry
Centauraea horrida Badaro
Centauraea kalambakensis Freyn · Sint.
Centauraea kartschiiana Scop.
Centauraea lactiflora Halacry
Centauraea linareuali Lazaro
Centauraea megarensis Halacry · Hayek
Centauraea niederi Heldr.
Centauraea pewedanifolia Boiss; · Orph.
Centauraea pinnanta Pau
Centauraea princeps Boiss. · Heldr.
Centauraea pulvinata (C. Blanca) C. Blanca
*Centauraea pygmaea*
Crepis crocifolia Boiss · Heldr.
Crepis granatensis (Willk.) B. Blanca · M. Cueto
Erigeron frigidus Boiss. · ex··DC.
Hymenostemma pseudanthemis (Kunze) Willd.
Jurinea cyanoides (L.) Reichenb.
Jurinea fontqueri Cuatrec.
Lamprosps microcephala (Hori.) Dittrich Greuter
Luantodon microcephalus (Boiss. · ex·· DC.) Boiss.
Luantodon boryi Boiss.
Luantodon siculus (Guss.) Finch · Sell
*Ligularia sibirica*
*Lugisia neglecta*
Nolletia chrysocomoides (Desf.) Cass. · ex·· Less.
*Picris algarbiensis*
*Pulicaria vulgaris*
Senecio alboractus Maire
*Senecio congestus*
Senecio elodes Boiss. · ex·· DC.
Senecio nevadensis Boiss. · Reuter

CONVOLVULACEAE

Convolvulus argyrothamnos Greuter

CRASSULACEAE

Crassula aquatica (L.) Schonl.
CRUCIFERAE

*Achillea montana*, L.
Alyssum arenarium Loisel
Alyssum fastigiatum Heywood
*Alyssum leucocyanum*
Biscutella divionensis Jordan
Biscutella neustriae Bonnet
Biscutella rotgesii Fouc.
*Biscutella vincentina*
Boleum asperum (Pers.) Desvaux -
Brassica glabrescens Poldini
Brassica insularis Moris
Brassica macrocarpa Guss.
Coineya leptocarpa (Conz.-Albo) Greuter Burdet
Coineya rupestris Rouy
Cornopus navasii Pau
Diplotaxis ibicensis (Pau) Gomez-Campo
Diplotaxis siettiana Maire
Erucastrum palustre (Pirona) Vis.
Hormathophylla pyrenaica (Lapeyr.) Cullen Dudley
Tiberis arbuscula Runemark
Tiberis embergii Serve
Ionopsidium acaule (Desf.) Reichenb.
Ionopsidium savianum (Caruel) Ball ex Arcang.
Lepidium cardamines L.
Rhynchosinapis johnstonii (G. Samp.) Heywood
Sisymbrium matritense P.U. Ball Heywood
Sisymbrium supinum L.
*Vella pseudocytisus*

CYPERACEAE
Carex camposii Boiss. Reuter
*Carex cretica*
Carex durieuvi Steudel
Eleocharis carniolica Koch
Eriophorum gracile Koch ex Roth

*DATISCACEAE*
*Datysa cannabina*

DIPOSCACEAE
Bordervia chouardi (Gaussen) Heslot

ELLATINACEAE
*Ellatine alsingstremm*
Ellatine brochini Clavaud

*EPIDACEAE*
*Rhododendron ponticum subsp. baticum*

EUPHORBIEAE
Euphorbia hierosolymitana Boiss.
Euphorbia mongolitana Kuhlenew. Leujean
*Euphorbia setosa*, Turcz.

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GENTIANACEAE
Gentaurium rigualii Esteve Chueca
Gentaurium somedanum Lainz
"Gentiana boryi"
Gentiana ligustica R. de Vilm. Chopinet
Gentianella uliginosa (Willd.) Borner

GERANIACEAE
Erodium astragaloides Boiss. Reuter
Erodium rupicola Boiss.
Geranium maderense P.F. Yeo

GRAMINEAE
"Antinorina insularis"
Calamagrostis sootica (Druce) Druce
Culmmnthus subtilis (Tratt.) Seide
"Duchesnania setacea"
Festuca morisiana Parl.
Gaudinia hispanica Stace Tutin
Microbryopsis tuberosa Romero - Zarco Cabezudo
Puccinellia pungens (Pau) Paunero
Slipa austroitalica Martinovsky
Slipa bavarica Martinovsky H. Scholz
Trisetaria dufourei (Boiss.) Paunero
Trisetum comradii Gamisans
Vulpia fontquerana Heladeris Stace

GROSSULARIACEAE
Ribes sardum Martelli

HYPERICACEAE
Hypericum aciferum (Greuter) N.K.B. Robson
"Hypericum delphicum"

"IRIDACEAE"
"Crocus goulmyi"

LABIATAE
Dranoccephalum austriacum L.
Micromeria taygetea P.H. Davis
"Nepeta dirhyva"
Nepeta sphaclotica P.H. Davis
Origanum dictamnus L.
Sideritis incana subsp. glauca (Cav.) Malagarriga
Sideritis javalambrensis Pau
Teucrium lepicephalum Pau
Teucrium turreddanum 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 desertii Willk.
Torenia pavonia Adamovic
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

"CICCULARIA"
Cytisus acolicus Guss. ex Lindl.
Genista dorycnifolia Font Quer
Genista holopetala (Fleischm. ex Koch) Baldacci

"Lotus aduncus"
"Medicago brynniana"
Ononis maweana Ball
Trifolium saxatile All.
Vicia bifoliolata J.D. Rodriguez

LENTIBULARIACEAE
Pinguicula nevadensis (Lindb.) Casper

LILIACEAE
Allium grosii Font Quer

"Allium heldreichii"
"Allium obtusiflorum"
"Androculium eschweigeri"
Asphodelus hento-rainhae P. Silva
Tritillaria subovata Piz
Muscari gussonii (Parl. & Tod.)
Tulipa qouinymy Sealy Turrill
Tulipa undulatfolia Boiss.

LINACEAE
Linum leonii F.W. Schultz

LYTHRACEAE
Lythrum flexuosum Lay.

MALVACEAE
Kosteletzkya pentacarpos (L.) Ledeb.

NAJADACEAE
Najas flexilis (Willd.) Rostk. W.L Schmidt

ORCHIDACEAE
Cephalanthera cucullata Boiss. Helde.
Cephalanthera compacta (Steven) Aschers. Graebner
"Cypripedium calceolus"
Coelogyne macrophylla Lowe
Hammarbya paludos (L.) Kuntze
Byblis loeselii (L.) Rich
"Dactylorhiza pratensis subsp. bullifolia"

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PAEONIACEAE
Paonia cambessedesii (Willk.) Willk.
Paonia pannassica Istanoudakis
Paonia rhodia Stern

PALMAE
Phoenic theophrasti Greuter

PAPAVERACEAE
Rupicarpos africana (Lam.) Pome
Sarcocarpos baetica (Boiss. Reuter) Nyman
Sarcocarpos speciosa Boiss.

PITTIOSPORACEAE
Pittosporum coriaceum Bryand. ex Ait.

PLUMBAGINACEAE
Armeria eusciadensis Vivant-
Armeria royana Daveau
Armeria soleirolii (Duby) Godron
Armeria velutina Welv. ex Boiss. Reuter
Limonium Bellidifolium (Gouan) Dumbor. ssp. dubyi (Gren Godron) P. Fourn.

POLYGONACEAE
*Polygonum icaricum*
Rumex rupestris Le Gall

POTAMOGETONACEAE
Potamogeton rutilus Wolfgang

PRIMULACEAE
Androsace mathildae Levier
Androsace pyrenaica Lam.
Primula apennina Widmer
Primula palinuri Petagna
Soldanella villosa Darraqc.

RANUNCULACEAE
Aconitum corsicum Gayer
Adonis cyclennae Boiss., Heldr. Orph.
Adonis distorta Ten.
Aquilegia bertolionii Schott
Aquilegia cazorlensis Heywood
Aquilegia litardierei Briq.
Aquilegia ottonis Orph. ex Boiss.
Consolida samia P.H. Davis
*Consolida tuntasiana*
Delphinium requienii. DC.
Helleborus lividus ssp. lividus Aiton
Pulsatilla patens (L.) Miller
Ranunculus-acetosellifolius Boiss.
Ranunculus cabrerensis Rothm.
*Ranunculus cacao*
Ranunculus fontanus C. Presl
Ranunculus nodiflorus L.
Ranunculus weyleri Marec.
ROSIDAE
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 tormbeanensis Boiss. ex Engl.

SCHUCHZERIACEAE
Scheuchzeria palustris L.

SCROPHULARIACEAE
Antirrhinum charidemi Lange
Linaria algarviana Chav.
Linaria ficalhoana Rouy
Linaria flava (Poir. Desf.
Linaria helenica Turrill
Linaria lamarckii
Linaria ricardoi Cout.
Linaria thursica B. Valdes Cabezudo
Linaria tonzigi Lona
Lindernia procumbens (Krocker) Philcox
Melampyrum ciliatum
Odontites granatensis Boiss.
Verbascus cylleneum (Boiss. Heldr.) Kuntze
Verbascum litigiosum G. Samp
Veronica oetaea L.-A. Gustavson

SELAGINACEAE
Cibularia stygia Orph. ex Boiss.

SOLANACEAE
Atropa baetica Willk.

THYMELAEACEAE
Urophane petraea Leybold
Urophane rodriguezii Texidor

TYPHACEAE
Typha minima Funck
*Typha shuttleworthii

ULMACEAE
*Ulmus abelica (Lam.) Boiss.
UMBELLIFERAE
Angelica heterocarpa Lloyd
Apium bermejoi Llorens
*Aegilops repens*
Aethamanta cortiana Ferrarini
Bupleurum capillare Boiss. Heldr.
Bupleurum dianthifolium Guss.
Bupleurum kakisalae Greuter
Eryngium alpinum L.
Ertngium viviparum Gay
Laserpitium longiradium Boiss.
*Lerreschia thomasii*
Naurage balearica Constans Cannon
Oenanthe coniodes Lange
Petagna satulifolia Guss.
Rouya polygama (Desf.) Coincy
Seseli dianae Campan
*Seseli farrenyi*
Seseli intricatum Boiss.
*Thorella verticillatinundata*

VALERIANACEAE
Centranthus trinervis (Viv.) Beguinot

VIOLACEAE
Viola hispida Lam.
Viola stolonifera Rodríguez

LOWER PLANTS

ALGAE

CHARACEAE (green algae)
Lampothamnium papulosum (Walroth) J. Grove

FUNGI

HYGROPHORACEAE
Hygrocybe punicea (Fr., Fr.) Kummer

THELEPHORACEAE
Salindon imbricatis (L., Fr.) P. Karsten
MACRO-LICHENES

USNEACEAE
Usnea longissima Ach.
Neyshroma hessenniae P. James F.J. White
*Cetraria psoromoides*
*Cetraria laureri*
*Cetraria merrillii*
*Cladonia brevis*
*Coelocaulon cresspae*
*Collema dichotomum*
*Leptogium burgessii*
*Leptogium corticola*
*Leptogium furfresianum*
*Pseudocyphellaria lacerata*
*Pseudocyphellaria norvegica*
*Ramalinga elegans*
*Schismatopoma_graphidoides*
*Telochistes chrysophthalmus*

BRYOPHYTA

Adelanthus lindenbergiannus (Lehm.) Mitt.
Barbula maxima Syed Crundwell
Cephalozia hibernica Spruce ex Pears.
Cyclodictyon lacteovirens (Hook. Tayl.) Mitt.
Daltonia spachnoides (Sm.) Hook. Tayl.
Geocalyx graveolens (Schrad.) Nees
Gymnostomum insigne (Dix.) A.J.E. Smith
Lejeunea flava (Sw.) Nees
Lejeunea hibernica Bischl. H. Millar Bonner
Lejeunea holtii Spruce
Lejeunea mandonii (Steph.) K. Muell.
Oxystegus hibernicus (Mitt.) Hilp.
Radula holtii Spruce
Riella notarisii Mont.
Seliyeria oelandica C. Jens. Medel
Telaranea nematodes (Gott. ex Aust.) Howe.
*Thamnobryum angustifolium*

SPECIES FOR MACARONESIA

PTERIDOPHYTA

Hymenophyllum maderense
*Marsilea azorica*
Polystichum drepanum

*GYMNOSPERMAE*

*CUPRESSACEAE*
*Juniperus_cedrus*

*ANGIOSPERMAE*
ASCLEPIADACEAE
*Ceropegia chrysanthia*

*BERBERIDACEAE*
*Berberis maderensis*

BORAGINACEAE
*Echium calilythyrsum*
Echium gentianoides
*Echium pininana*
*Echium simplex*

CAMPANULACEAE
Azorina vidalii
*Laurentia canariensis*
Musschia aurea
Musschia wollastonii

*CAPRIFOLIACEAE*
*Sambucus maderensis*
*Sambucus palmensis*

*CELASTRACEAE*
*Mantus dryandri*

CISTACEAE
Cistus chinamadensis
Helianthemum bystropogophyllum
COMPOSITAE
*Argyranthemum adauctum subsp. erythrocarpon*
*Argyranthemum coronopifolium*
Argyranthemum lidi
*Asteriscus schultzii*
Atractylis arbuscula
*Atractylis preauxiana*
Cheirolopus duranii
*Cheirolopus ghomerytus*
*Cheirolopus junonianus*
*Cheirolopus massonianus*
Helichrysum oligocephala
Lactuca watsoniana
*Legoa revolute*
Onopordum nogalessii
*Onopordum carduelinum*
Pericallis hadrosomus
*Pulicaria canariensis*
*Rhaponticum canariensis*
*Senacio appendiculatus*
*Senacio hermosae*
*Senacio multiflorus*
*Sonchus arboreus*
*Sonchus bornmuelleri*
*Sonchus tectifolius*
Stemmacantha cynaroides
Sventenia bupleuroides
Tanacetum ptarmaciflorum

CONVOLVULACEAE
*Convolvulus canariensis*
Convolvulus caput-medusae
*Convolvulus lopez-socasii*
*Convolvulus massonii*

CRASSULACEAE
*Aeonium cuneatum*
Aeonium gomeraense
*Aeonium maschense*
*Aeonium saundersii*
*Aichryson dumosum*
*Aichryson pachycaulon*
*Monanthes adenoseps*
Monanthes wildpretii

CRUCIFERAE
*Bressica bourgeaui*
Crambe arborea
Crambe laevigata
*Crambe scoparia*
Crambe sventenii
Parolinia schizosigmoides

*CYPERACEAE*
*Carex pernauertiana*
*DIPSACACEAE*
*Pteroccephalus virens*

*ERICACEAE*
*Arbutus canariensis*
*Daboecia azorica*
*Erica scoparia subsp. azorica*

EUPHORBIACEAE
*Euphorbia bourgeauana*
*Euphorbia handiensis*
Euphorbia lambii
*Euphorbia mellifera*

GERANIACEAE
Geranium maderense

*LAMIATAE*
*Sideritis cystosiphon*
*Sideritis discolor*
*Sideritis gomeraea*
*Sideritis nervosa*

LEGUMINOSAE
*Anagyris latifolia*
*Dorycnium spectabile*
Lotus azoricus
*Lotus callis-viridis*
*Lotus kunkelli*
*Lotus maculatus*
*Lotus mascarenis*
*Ononis christii*
*Teline benchoavensis*
*Teline teneriffae*
*Teline nervosa*
*Teline osyroides*
*Teline salsoloides*

*LILIACEAE*
*Androcymbium psammophilum*
*Asparagus fallax*

*MALVACEAE*
*Lavatera phoenicea*

*MYRICACEAE*
*Myrica rivas-martinezii*

ORCHIDACEAE
*Goodyera metlesiciana*
Goodyera macrophylla

PITTOSPORACEAE
Pittosporum coreaceum
PLUMBAGINACEAE
* Limonium arborescens
* Limonium dendroides
* Limonium preauxii
* Limonium puberulum
* Limonium spectabile
* Limonium adventicini

POLYGONACEAE
* Rumex azoricus

ROSACEAE
* Bencomia brachystachya
* Bencomia estipulata
  Chamaezaelas coriacea
* Harpeyella maderensis
* Sorbus maderensis

RUTACEAE
* Ruta microcarpa
* Ruta pinnata

SANTALACEAE
* Kunkeniella canariensis

SCROPHULARIACEAE
Euphrasia azorica
* Isoplexis chalcantha
* Scrophularia calliantha
* Scrophularia smithii

SELAGINACEAE
* Globularia ascanii
* Globularia sarcophylla

SOLANACEAE
* Solanum lidii
* Solanum vespertilio

UMBELLIFERAE
Dupleurum handiense
Ferula latipinna
* Peucedanum lowei

VIOLACEAE
* Viola palmensis

LICHENS
* Erigeron leyiandii
* Hypogymnia maderensis
ANNEX II

species of animals and plants threatened in the Community.

a) ANIMALS

VERTEBRATES

MAMMALS

INSECTIVORA
Erinaceidae
Erinaceus algericus
Erinaceus europaeus
Soricidae
Crocidura canariensis
Suncus etruscus
Talpidae
Galemys pyrenaicus

MICROCHIROPTERA
All species

RODENTIA
Gliridae
All species except Glis glis
Sciuridae
Citellus citellus
Sclurus anomalus
Castoridae
Castor fiber
Cricetidae
Cricetus cricetus
Microtidae
Microtus cabrerae
Microtus oeconomus arenicola
Zapodidae
Sicista betulina
Nycticidae
Hystrix cristata

CARNIVORA
Canidae
Canis lupus (delete 'except Spanish populations')
Ursidae
"Ursus arctos"
Mustelidae
Lutra lutra
Mustela lutreola
Mustela nivalis burrenensis
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)
Rupicapra rupicarpa balcanica
Rupicapra rupicarpa ornata

CETACEA
All species

REPTILES

TESTUDINES
Testudinidae
Testudo hermanni
Testudo graeca
Testudo marginata
Cheloniidae
Caretta caretta
Chelonia mydas
Lepidochelys kempii
Eretmochelys imbricata
Dermochelyidae
Dermochelys coriacea
Emydidae
Emys obbicularis
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 princeps
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
Phyllodactylus europaeus
Tarentola angustimentalis
Tarentola boettgeri
Tarentola delalandii
Tarentola gomerensis
Agamidae
Stellio stellio
Chamæleonidae
Chamæleo chamaeleon
Anguidae
Ophisauris apodus

OPHIDIA
*Boidae*
*Eryx jaculus*
Colubridae
Coluber caspius
Coluber hippocrepis
Coluber jugularis
Coluber laurenti
Coluber najadum
Coluber nummifer
Coluber viridiflavus
Crotalinae austriaca
Eirenis modesta
Elaphe longissima
Elaphe quaturolineata
Elaphe situata
Natrix natrix cetti
Natrix natrix corsa
Natrix tessellata
Telescopus falcatus
Viperidae
Vipera ammodytes
Vipera latastii
Vipera schweizeri
Vipera seoanei
Vipera urinii
Vipera xanthina

AMPHIBIANS

CAUDATA
Salamandridae
Chiloglossa lusitanica
Euproctus asper
Euproctus montanus
Euproctus platycephalus
Salamandra atra
Salamandra aurorae
Salamandra lanzai
Salamandra luschanii
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 cisternasii
Alytes muletensis
Alytes obstetricans
Ranidae
Rana arvalis
Rana dalmatina
Rana graeca
Rana iberica
Rana italicca
Rana latastei
Pelobatidae
Pelobates cultripes
Pelobates fuscus
Pelobates syriacus
Bufonidae
Bufo calamita
Bufo viridis
Hylidae
Hyla arborea
Hyla meridionalis
Hyla sarda

FISH

ACIPENSERIFORMES
Acipenseridae
Acipenser naccarii

ATHERINIFORMES
Cyprinodontidae
Valentia hispanica

SALMONIFORMES
Coregonidae
Coregonus oxyrinchus

PERCIFORMES
Percidae
Zingel asper

INVERTEBRATES

ARTHROPODS

INSECTA

COLEOPTERA
Akimerus schaefferi
Ampedus quadrisignatus
Buprestis splendens
Carabus olympiae
Cernambix cerdo
Clinidium canaliculatum
Cucujus cinnaberinus
Cucujus haematodes
Dytiscus latissimus
Graphoderus bilineatus
(Del. te 'Lucanus cervus')
Osmoderma eremita
Rhysodes germani
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 echne
Lycaena dispar
Maculinea arion
Maculinea nausithous
Maculinea teleius
Melenargia arge
Papilio alexanor
Papilio hospiton
Parnassius apollo
Parnassius mnemoseme
Plebicula golgus
Proserpinus proserpina
Zerynthia polyxena

MANTODEA
Apteromantis aptera

ODONATA
Aeshna viridis
Coenagrion mercuriale
Cordulegaster trisactriae
Gomphus flavipes
Gomphus geraelini
Leucorrhinia albifrons
Leucorrhinia caudalis
Leucorrhinia pectoralis
Lindenia tetrypehylia
Macromia splendens
Ophiogomphus cecilia
Oxygastra curtisi
Stylurus flavipes
Sympecma braueri

ORTHOPTERA
Baetica ustulata
Sago pedo

ARACHNIDA

ARANEAE
Macrothele calpeiana
MOLLUSCS

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

Annex IIA should contain all plant species listed in Annex IAb, plus those mentioned below.

PHYLLOPHYTA

ASPLENIACEAE
Asplenium hemionitis L.

DICKSONIACEAE
Culcita macrocarpa C. Presl

HYMENOPHYLLACEAE
Hymenophyllum maderensis

GYMNOSPERMAE

CUPRESSACEAE
Juniperus drupacea Labill.

ANGIOSPERMAE

AMARYLLIDACEA
Galanthus reginae-olgae Orph.
Narcissus longispathus Pugsley

ASCLEPIADACEAE
Caralluma europaea (Guss.) N.E.Br.

BERBERIDACEAE
Berberis maderensis Lowe

BORAGINACEAE
Omphalodes lucilae Boiss.
Solenanthus aibanicus (Degen et al.) Degen Baldacci

CAMPANULACEAE
Asyneuma giganteum (Boiss.) Bornm.
Campanula aizoon Boiss. Spruner
Campanula morettiana Reichenb.
Physoplexis comosa (L.) Schur.
Trachelium asperuloides Boiss. Orph.

CARYOPHYLLACEAE
Phlomis graminoides Vill.
Plantus pulviniformis Greuter
Rheinamia contiguae Pau
Retrosperma pseudoviscosa Fernandez Casas
Sarcocornia mucronata Heldr. ex Hauskn.

Convolvulaceae
Convolvulus musconi Dietr.
COMPOSITAE
Argyranthemum pinnatifidum ssp. succulentum
Helichrysum gilborpili Rouy
Santolina elegans Boiss. ex DC.
Wagenitzia tenuifolia (Sieber ex Sprengel) Dostal

EUPHORBIACEAE
Euphorbia nevadensis Boiss. Reuter

GERANIACEAE
Erodium chrysanthum L'Hér. ex DC.

GESNERIACEAE
Jankaea heldreichii (Boiss.) Boiss.
Ranordia serbeca Pancic

IRIDACEAE
Crocus etruscus Parl.
Crocus robertianus C.D. Brickell
Iris marisca Ricci Colasante

LABIATAE
Dracocephalum austiacum L.
Nepeta diphyta (Boiss.) Heldr. ex Halacsy
Origanum compactum Benth.
Origanum scabrum Boiss. Heldr.
Rosmarinus tomentosus Huber-Morath Haire
Teucrium charidemi Sandwith

LILIACEAE
Androcymbium europeum (Lange) K. Richter
Colchicum corsicum Baker
Colchicum cousturieri Greuter

*Fritillaria*
all species

(Delete all individual species of Fritillaria)

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

*Lilium - all species*

(Delete 'Lilium pomponium L."

Ornithogalum reverchonii Degen Herv.-Bass.
Scilla odorata Link

MALVACEAE
Lavatera mauritanica Durieu

ORCHIDACEAE
*Cyrtopodium all species*
Epipodium aphyllum Sw.
Ophrys argolica Fleschm.
Orchis scapulorum Simsmerh.
*Octopus all species*
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 italicca D.A. Webb
Saxifraga portosanctana Boiss.
Saxifraga presolanensis Engl.
Saxifraga tomenteinensis Boiss. ex Engl.
Saxifraga valdensis DC.
Saxifraga vayredama Luizet

SCROPHULARIACEAE
Euphrasia azorica Wats.

SOLANACEAE
Mandragora officinarum L.

THYMELAEACEAE
Daphne jasminea Sibth. Smith

UMBELLIFERAE
Bunium brevifolium Lowe
Bryngium alpinum L.

VIOLACEAE
Viola athois W. Becker
Viola cazorlensis Gandoger
Viola delphinantha Boiss.
ANNEX III

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

a) ANIMALS

VERTEBRATES

MAMMALS

CARNIVORA
Canidae
Canis aureus
(Delete 'Canis lupus (Spanish populations)')
Mustelidae
Martes martes
Phocidae
All species not mentioned in annex II
Viverridae
Genetta genetta
Felis silvestris (wildcat)
Mustela putorius

RIPPLICIDENTA
Leporidae
Lepus timidus

ARTIODACTYLA
Bovidae
Capra ibex
Capra pyrenaica (except Capra pyrenaica pyrenaica)
Ovis amnon musimon (except populations mentioned in annex II)
Rupicapra rupicapra (except Rupicapra rupicapra balcanica and Rupicapra rupicapra ornata)

AMPHIBIANS

ANURA
Ranidae
Rana esculenta
Rana perezi
Rana ridibunda
Rana temporaria
FISH

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

ACIPENSERIFORMES
Acipenseridae
Acipenser sturio
Huso huso

ATHERINIFORMES
Cyprinodontidae
Aphanius iberis

SALMONIFORMES
Coregonidae (Coregonus)
All species except Coregonus oxyrhynchus
Salmonidae
Hucho hucho
Salmosalar (Delete 'Except salmon in sea waters')
Cyprinidae
Vimba vimba
Abramis sapa
Alburnus albidus
Rutilus pigus
Rutilus rubilio
Rutilus arcaii
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 albi-pinnantus
Barbus plebejus
Barbus meridionalis
Barbus comiza
Aphanius aspius
Cobitisidae
Cobitis larvata
Cobitis taenia
Cobitis trichonia
Misgurnus fossilis
Sabanejewia aurata

PERCIFORMES
Percidae
Gymnocephalus schraetzer
Zingel streber
Zingel zingel
Gobidae
Podogobius panizzai
Podogobius nigricans
Pomatoschistus canestrini

CLUPEIFORMES
Clupeidae
Alosa alosa
Alosa fallax

GASTEROSTEIFORMES
Gasterosteidae
Pungitius pungitius helenicus

SILURIFORMES
Siluridae
Silurus arrostotellis

INVERTEBRES

COELENTERATA

CNIDARIA
Corallium rubrum

MOLLUSCA

GASTROPODA - STYLOMMAIOPHORA
Helicidae
Helix pomatia

BIVALVIA - UNIONOIDA
Margaritiferaeidae
Margaritifera margaritifera
Unionidae
Micricondylaeae compressa
Unio elongatulus

ANNELIDA

HIRUDINEA - ARHYNOCHOBDELLAE
Hirudinidae
Hirudo medicinalis

ARTHROPODA

CRUSTACEA - DECAPODA
Astacidae
Astacus astacus
Astropotamobius pallipes
Astropotamobius torrentium

INSECTA - LEPIDOPTERA
Saturniidae
Graphis isabellae
b) **PLANTS**

- **FUNGI**
- **All species**

- **ALgae**
  - *Phymatolithion calcaratum*
  - *Lithothamnion corallioides*

**THallophytes**
- Cladonia subgenus Cladina

**Bryophytes**
- Sphagnum spp.
- Leucobryum glaucum (Hedw.) Angstr.

**Pteridophytes**
- Lycopodium spp.
  - (Delete 'Osmunda regalis L.')</p>
- *Osmunda spp.*
  - Polystichum setiferum (Forskål) Woynar

**Phanerogames Gynnospermes**
  - (Delete 'Taxus baccata L.')</p>

**Phanerogames Angiospermes**
- **All species of the following genera:**
  - Allium
  - Arum
  - Biarum
  - Colchicum
  - Crocus
  - Cyclamen
  - Erythronium
  - Fritillaria
  - Galanthus
  - Gladiolus
  - Iris
  - Leucojum
  - Lilium
  - Muscari
  - Narcissus
  - Orchidaceae
  - Salicornia
  - Scilla
  - Tulipa
Annex IV proposed by Commission to be replaced by the following Annex:
(*Underlined are additions)

ANNEX IV

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

The hierarchical classification of habitats, produced through the 1985 (85/338/EEC) is the basic work used for the establishment of Annex IV. Each habitat shows the corresponding Corine code listed in the document: "Technical Handbook - volume I - pp. 73-109 - CORINE/BIOTOPE/8-9-2.2, 19 May 1988, partially updated February 14, 1989, where the habitat is listed in CORINE.

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.
11.29 Communities forming and colonizing coralligenous concretions of calcified red algae in the circalittoral zone of the Mediterranean
11.31 Atlantic, lower level
11.32 Atlantic, middle level
14 mud flats and sand flats which are not covered by seawater at low tide.

Shingle beaches (17) and sea cliffs (18)
17.2 Annual vegetation of drift lines
17.3 Perennial vegetation of shingle banks

The Mediterranean and thermo-Atlantic coasts:
11.34 The beds of Posidonion

(Delete 'Sea cliffs and their vegetation (biotopes 17.2 and 17.3')

18.21 Atlantic coasts
Including Baltic 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 Arthrocnemeta fruticosae) and
15.17 (Iberian Pagano-Salvoiean)
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 Ammophilion (16.212)
    (white dunes)
16.22 Fixed dunes with herbaceous vegetation (grey dunes), all regional
    sub-types (16.221-16.227)
16.23 Decalcified fixed dunes with Empetrient nigri (North Sea)
16.24 Decalcified fixed dune with Calluno-Ulicetea p (Atlantic)
16.25 Dunes with Hypophae rhamnoides
16.26 Dunes with Salix arenaria
16.3 Humid dune slacks - all zonal types (16.31-16.35)

Mediterranean

16.223 Sandy beaches with Crucianellion maritimae
16.222 Dunes with Euphorbia terracina
16.274 Juniper thickets (Juniperion lyciae)
16.228 Dunes with Malcolmietalia
16.224 Dunes with Brachypodietalia and annuals
16.28 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 round the Alps
    with amphibious vegetation: Littorelletalia and Isoetalia
    (22.31) and annual vegetation on exposed banks (nanocyperetalia)
    (22.32).
    Subtype: lowland unpolluted mesotrophic lakes
    Subtype: naturally eutrophic lakes
22.12 Hard oligo-mesotrophic waters
22.14 Dystrophic lakes
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
    Ranunculion nodiflorum on silicous 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: Ranunculion fluiatilis
  - 24.226 populations of Pentasition
  - 24.52 Chenopodion rubri
- constantly flowing Mediterranean rivers
  - 24.225 Glaucion flavi
  - 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 thicket 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 machaiara (Ireland) (31.233)
- 31.225 British heaths
- 31.235 Armorican, Cotentin and western English heaths
- 31.238 Anglo-Norman heaths
- 31.24 Ibero-Atlantic Erica Ulex and rockrose heaths
  - Alpine willow scrub
  - Atlantic wet heathland with Erica erigena
- 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

**SCLEROXYLLOUS SCRUB (MATORRAL)**

Priority for residual or endemic types.

**Sub-Mediterranean**

- 31.82 Buxus sempervirens formations on calcareous rock slopes (Jura, the valleys of the Sâone, Meuse, Moselle and Rhine and the neighbourhood of Basle)
- 31.84 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 Ziziphus
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, 32.26.
33 Phrygana
33.1 Western Mediterranean cliff-top associations (Astragalo -
    Plataginetum subulatae)
33.3 Low Thorny formations of Greece (Cisto - Micromerietea
    "Sarcopoterieta laspinosi")
33.4 Cretan formations (Euphorbieto - Verbascion)

NATURAL AND SEMI-NATURAL GRASSLAND FORMATIONS

Natural grasslands
34.1 Karstic "barren" grasslands (3411) or xeric sands (3412)
34.2 Calaminarian grasslands (rare and endemic, in Central Europe)
34.33 Sub-Atlantic and sub-Mediterranean very dry Xerobromion
    Mosaics of various grasslands (e.g. mixed dry calcareous grassland and
    heath communities), if not included in 34.322
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 Festucetalia indigetae 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)
35.3 On calcareous substrates (Festuco-Brometea)(sites of remarkable
    orchids) 34.34, 34.35 and 34.36
35.4 Pseudo-steppe with grasses and annuals

Sclerophyllous grazed forests (dehesas in Spain)
31.11 Quercus suber and/or Q. ilex

Semi-natural tall-herb grasslands
37 All types especially Holinion (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 (Sphaginion)
51.12 Transitional types (Erico-Sphaginion)
51.1. Tall reed beds
53.2 Large sedge communities of eutrophic marshes and poor fens
54.1. Springs
54.5 Transition mires
54.6 Wet depressions on peat (Rhynchosporion)
52 Blanket bogs
Types 52.1 and 52.2

- The Schoenus ferrugineus bogs of southern Germany
- Acid valley mires

Calcaceous fens (53, 54)
53.3 Calcaceous 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-astrofuscae)

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 Calcareae 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 and sandstone quarries
62.4 Bare calcareous rocks (Ireland, Great Britain, France)

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. (22 words deleted.)

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 Calcareae beech forest (Cephalenthero-Fagion)
41.24 Oak-hornbeam forests with Stellaria (Stellario - Carpinetum)
41.26 Oak-hornbeam forests with Galium (Galio - Carpinetum)
41.4 Ravine and slope mixed forests (Tilio - Acerion)
41.51 Old acidophilous oak woods with beech on the sandy plains by the North Sea
41.52 Atlantic sessile oak woods with beech
41.53 Old oak woods with holly and Blechnum in the British Isles
41.54 Pyreneo-Galician acidophilous oaks woods
41.71 Western pubescent oak woods
42.51 Caledonian forests

Medieval deer parks with ancient oaks in an open canopy

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)
41.1A Taxus (Monte Gargano)
41.1B 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 Galicio-Portuguese pedunculate oak woods and Quercion pyrenaicae
41.85 Fraxinus angustifolia woods and sub-types
41.85 Quercus trojana woods of Italy and Greece
41.9 Chestnut woods (in France and Italy)

42.A1 Funeral cypress (Cypressus sempervirens)
44.17 Salix alba and Populus alba galleries
44.4 Mixed oak-elm-ash forests of great rivers

44.7 Oriental plane woods (all subtypes)
44.8 Southern riparian galleries
41.77 Quercus faginea woods (Iberian peninsular)

Sclerophyllus mediterraneus forests - endemic or residual

45.1 Oleo-Ceratonion forests
45.2 Quercion suber forests
45.3 Quercion ilicis forests
41.7C Cretan Quercion brachypphyllae forests
45.5 Quercus macrolepis woods
45.6 Macaronsian laurel forests (Laurus, Ocotea) and sub-type 4561, 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-Cembrion 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 unspoiled example)

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-type 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 (EE)
42.A3 Juniperus excelsa (Gr)
42.A4 Juniperus foetidissima (Gr)
42.A5 Juniperus drupacea (Gr)
42.A6 Juniperus macaronesiensis
Annex V (a), after first indent:

- they are among the 10 most important areas in the Community for the conservation of each of the species specified in accordance with Annex I;

- they are among the two most important areas in a region for the conservation of the species specified in accordance with Annex I insofar as that region contains areas of regional significance for those species.

For the purpose of assessing the importance of areas, size of the area, population harboured and perrennity shall be used.

For application of criterion 2), at least those areas should be classified which meet one or both of the following conditions:

- they are among the 10 most important areas in the Community for the conservation of each of the habitat types specified in accordance with Annex IV;

- they are among the two most important areas in a region for the conservation of each of the habitat types specified in accordance with Annex IV insofar as that region contains areas of regional significance for that habitat type. Size and representativity shall be used to assess importance of the areas.

Amendment No. 38

Annex V (a), after first indent, to be changed as follows:

- they are among the most important areas in the Community for the conservation of each of the species specified in accordance with Annex I;

- they are among the most important areas in a region for the conservation of the species specified in accordance with Annex I insofar as that region contains areas of regional significance for those species.

For the purpose of assessing the importance of areas, size of the area, population harboured and perrennity shall be used.

For application of criterion 2), at least those areas should be classified which meet one or both of the following conditions:

- they are among the most important areas in the Community for the conservation of each of the habitat types specified in accordance with Annex IV;
Annex V (b) after first indent:

- they are among the 100 most important areas in the Community for the conservation of each of the species specified in accordance with Annex I;

- they are among the 5 most important areas in a region for the conservation of each of the species specified in accordance with Annex I as that region contains areas of regional significance for those species.

For the purpose of assessing the importance of areas, size of the area, population harboured and perennity shall be used.

For application of criterion 2), at least those areas should be classified which meet one or both of the following conditions:

- they are among the 100 most important areas in the Community for the conservation of each of the habitat types specified in accordance with Annex IV;

- they are among the 5 most important areas in a region for the conservation of each of the habitat types specified in accordance with Annex IV as that region contains areas of regional significance for that habitat type. Size and representativity of the areas shall be used to assess their importance.

Amendment No. 39

Annex V (b), after first indent, to be changed as follows:

- they are among the most important areas in the Community for the conservation of each of the species specified in accordance with Annex I;

- they are among the most important areas in a region for the conservation of each of the species specified in accordance with Annex I insofar as that region contains areas of regional significance for those species.

For the purpose of assessing the importance of areas, size of the area, population harboured and perennity shall be used.

For application of criterion 2), at least those areas should be classified which meet one or both of the following conditions:

- they are among the most important areas in the Community for the conservation of each of the habitat types specified in accordance with Annex IV;

- they are among the most important areas in a region for the conservation of each of the habitat types specified in accordance with Annex IV insofar as that region contains areas of regional significance for that habitat type. Size and representativity of the areas shall be used to assess their importance.
Annex V (b) after fifth paragraph:

Member States may classify less than 5 areas in a region or, in the case of species specified in accordance with Annex I where the whole Community population is concentrated in their territory, less than 100 areas if:

a) no unclassified area is more important than others already classified in the same region, and

b) more than half of the areas that could qualify have been classified in a region, and

c) more than half of the regional population of the species is harboured in special protection areas.

In cases of species and types of habitats with very limited distribution involving more than one Member State, decisions as to how to apply the criteria will be taken in accordance with the procedure laid down in art. 23.

For criterion 3) areas should be included in addition to those which satisfy Criterion 1 or Criterion 2 if they are exceptionally rich in significant species of one or several taxonomic groups.
Annex VII proposed by Commission to be replaced by the following Annex:

ANNEX VII
Typical landscape features of importance to wild flora and fauna

Ancient trees, groves and orchards
Hedgerows
Trellines
Grassy terrace slopes
Scrub patches
Small woodlands
Ponds, temporary ponds and waterholes
Freshwater and brackish ditches
Humid depressions
Dry uncultivated hilltops
Arable field margins
Roadside verges
Stony areas
Herbaceous layer of orchards and plantations
Edges of waterways and waterbodies
Springs and flushes
Old tunnels and mineshafts
Drowned quarries
Salt pans
Inshore reefs, including artificial reefs
Amendment No. 42

Annex VIII to be supplemented as follows:

1) that exploitation will not have damaging effects on the habitat of the exploited species or on other species than those exploited;

2) that the best available techniques and methods are being used and that a certain specified skill is required, in order to minimise the potential pain the animal suffers at catching or killing;

3) that hunting regulations are strictly enforced.
embodying the opinion of the European Parliament on the proposal from the Commission to the Council for a directive on the protection of natural and semi-natural habitats and of wild fauna and flora

The European Parliament,

- having regard to the proposal from the Commission to the Council (COM(88) 301 final and COM(90) 59 final)¹,

- having been consulted by the Council pursuant to Article 130s of the EEC Treaty (Doc. C 3-0034/89),

- having regard to the second report of the Committee on the Environment, Public Health and Consumer Protection (Doc. A 3-254/90),

1. Approves the Commission proposal subject to Parliament's amendments and in accordance with the vote thereon;

2. Calls on the Council to notify Parliament should it intend to depart from the text approved by Parliament;

3. Asks to be consulted again should the Council intend to make substantial modifications to the Commission proposal;

4. Instructs its President to forward this opinion to the Council and Commission and, for information, to the Member States.

EXPLANATORY STATEMENT

1. Previous recommendations by Parliament

The Council decisions on ratification of the Bern Convention (on the conservation of European wildlife and natural habitats), and the Bonn Convention (on the conservation of migratory species of wild animals) have been in force in the Community since 1982. Hitherto, the EC has failed to implement the provisions of these conventions, which call for the drafting of legislation for all wild flora and fauna and their habitats. Exceptions to this are birds, covered since 1979 by the EC Birds Directive, and the international trade in wild flora and fauna, in respect of which the EC has adopted a Regulation implementing the Washington Convention (CITES), which endeavours to restrict this trade. The rapporteur has written three reports for Parliament evaluating the application of the Birds Directive, and the Berne, Bonn and Washington Conventions.1

In the resolutions set out in those report, Parliament made it clear that it was dissatisfied with the current state of implementation of the conventions, and it made a large number of recommendations. For example, it called on the Commission and the Member States

- to draw up as quickly as possibly a Community directive implementing the Bern and Bonn Conventions covering all species of marine and terrestrial flora and fauna present in the wild and their habitats;

- to draw up an autonomous Community environmental policy including a framework for the coordination, in accordance with this policy of restoration, protection, management and development of the terrestrial and marine environment, on the basis of a European environment plan.

2. The proposed Habitat Directive.

This proposal for a directive on the protection of natural and semi-natural habitats of wild fauna and flora, known as the Habitat Directive for short, largely satisfies these and other recommendations made by Parliament. It also implements the legal obligation resulting from the decision approving the Berne Convention: incorporation of the provisions of that Convention into the Community’s own legislation. The proposed directive provides for the protection of marine and terrestrial fauna and flora present in the

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1 (a) Doc. A 2-181/88 on the implementation of the Birds Directive in the EEC

(b) Doc. A 2-179/88 on the implementation of the Bern Convention (on the conservation of European wildlife and natural habitats) and the Bonn Convention (on the conservation of migratory species of wild animals) in the EC

wild and their habitats and also of special areas. The objective is the integrated application of the Conventions of the Berne and Bonn Conventions at EC level, and it also includes major provisions of the Ramsar Convention (for the protection of wetlands; signed by all the EC Member States apart from Luxembourg). The directive includes a deadline for the classification and protection of habitats, with priority being given to threatened habitats of specific species of flora and fauna and threatened (semi-)natural areas in general. A Joint Programme for policy measures and other activities by the Community and the Member States, which will be drawn up, provides for the creation and development of a European network of protected areas. To this end, the Commission also proposes amending the Directive on Environmental Impact Assessments (85/337/EEC).

To protect certain threatened species of flora and fauna the directive prohibits a number of activities. Explanation of a number of species of flora and fauna, listed in the Directive is permitted only under strict conditions. The directive provides for a management plan for the conservation of the species in question. Under certain conditions, derogations from these provisions are possible. Pursuant to the directive, Member States are obliged to report to the Commission on, for example, national regulations, classified areas, protection measures and derogations granted. The directive provides for the setting up of a 'Committee for the adaptation of the directive to technical and scientific progress', within which the Member States and the Commission can cooperate on the adaptation of the annexes to the directive.

3. Need for policy measures

In its Explanatory Memorandum, the Commission states that the proposed directive is consistent with Article 130r(4) of the Treaty, which provides that 'the Community shall take action relating to the environment when the objectives can be attained better at Community level than at the level of the individual Member States.' Doubts have been expressed about this, but your rapporteur does not share them. The report referred to above on the application of the Berne and Bonn Conventions provides a number of practical reasons. Some of the principal policy arguments are set out below:

1. Parliament called specifically on the Commission to propose an EC directive and an associated Community nature conservation policy because the Member States had totally failed to establish legislation implementing the provisions of the Berne and Bonn Conventions; as a result, the disparities between legislation and actual policy vary widely in the Member States. Moreover, the Fourth Environmental Action Programme approved by the Council announced policy measures on these lines (in point 5.1.4.).

2. There are numerous terrestrial and marine conservation areas and habitats of flora and fauna which cross national frontiers. Examples are the migration routes of animals and, as well as birds, there are fish, marine mammals, turtles and many land species (in particular, mammals, including bats). Many natural propagation routes of flora also
extend across national frontiers (see the section entitled 'Ecological Infrastructure'). A coherent European policy, together with a European network of conservation areas, can provide a uniform means of identifying these species, habitats and propagation and migration routes, and thereby broaden national perspectives.

3. Very many threats to habitats and species transcend frontiers: e.g. the trade in rare European fauna and flora, road construction, pollution, waterworks and water resources management in catchment basins. This also applies to damage caused by activities to a large extent subject to Community policy: e.g. agriculture, fisheries, and regional development. There is therefore a need for a coordinated Community approach to these threats. The same considerations apply to preserving the status and propagation of species and areas, which at present is not carried out on a satisfactory basis at EC level (although CORINE, the environment information programme, provides a good framework for this).

4. Measures financed by the structural funds, including those concerned with environmental protection, must conform to EC policy. It would therefore be desirable to have a uniform European classification system for conservation areas. This is also important as a means of preventing unfair competition, e.g. with regard to the location of industries in rural areas.

5. The northern Member States spend more money on nature conservation than the southern Member States, although it is the wealth of natural resources in the southern countries which are under considerable pressure. Money from the Integrated Programmes and the structural funds can be used to eliminate some of these imbalances. This is also true of funds provided under the Regulation on environmentally sensitive agricultural areas. The same considerations apply to the exchange or loaning of expertise between the Member States.

4. Ecological infrastructure

In the rapporteur's opinion, one of the major positive features of the Habitat Directive is its attempt to prevent and eliminate the fragmentation of nature. This is of considerable importance because, for species of flora and fauna and unique habitats already under pressure, fragmentation means the risk of their disappearing once and for all, and nature is particularly vulnerable. The fact is that as the available habitat of a species shrinks and becomes more isolated from the core areas, so there is an increased risk of extinction.

It is therefore imperative to maintain or develop habitats of a sufficient size and to maintain and encourage migration routes and natural links between main propagation areas and smaller habitats. In short, the aim must be to establish a continuous ecological infrastructure. The principle of ecological infrastructure is the basis of a dynamic conservation policy geared principally to nature itself and to natural processes. It indicates how we can use natural methods to maintain or restore flora and fauna in our fragmented landscape. Existing fragmented areas must be used to develop nature. Self-regulating processes must have the opportunity to develop. Here we see more than ever before the value of nature reserves, because it is these areas which contain the biological blueprints and the genetic source of natural development.
In practice, this may mean having to expand available areas and create buffer zones around core areas. Naturally occurring predators or herbivores might be reintroduced. Steps must also be taken to protect the areas from disturbances and encroachments. Habitats may be linked by expanding them and by the planned management of the intervening areas, e.g. by broadening, maintaining or introducing wooded banks and forest areas, by means of extensification or taking agricultural land out of production, and by better coordination of local planning and town development and 'impregnable' obstacles such as motorways.

Planning all these measures requires surveys of the core areas and of the propagation and migration routes of wild flora and fauna and of areas which are of importance to natural development and the threats to such development. Quite a lot of this information is already available, although it is not centralized. For example, the CORINE programme has made a survey of 'biotopes of significant importance for nature conservation in the EC'. CORINE should now be used principally for charting the geographical demarcation and location of areas. It is also necessary to chart ecological infrastructures already recognized as being in need of restoration, strengthening or development. Areas that are under a great deal of pressure must be designated on such maps, as must non-natural areas that are of strategic importance for wildlife (such as agricultural land that is liable to be taken out of production).

5. Joint Programme

The Habitat Directive provides for a Joint Programme for developing and expanding the European Network. The Commission intends to call this Natura 2000. The rapporteur regards this as a somewhat unfortunate name, because it creates the impression that nature can be frozen in time. This is not the case nor, of course, may it be so. Nature reserves are intended as a permanent resource for the continued existence of living and dynamic nature, and the name of the programme should reflect this. The rapporteur therefore proposes that it be called 'Natura semper'. This network should be established along the lines referred to above. This will enable priorities and possibilities to be defined for the habitats which are to be protected, restored or expanded and will also indicate whether it is possible and/or desirable to reintroduce species. Aid to specific projects might be made dependent on their compatibility with the European Network. This applies, for example, to financial aid granted under the regulations for Community Action on the Environment (CAE) and for 'environmentally vulnerable areas', but also aid for other policy sectors. In implementing the set-aside regulation, reference should not only be made to purely agro-economic criteria, the extent to which the land will fit in with the ecological infrastructure should also be a factor in decisions and in funding.

On the other hand, support should be withdrawn from projects which could have negative repercussions on the areas to be protected and on the ecological infrastructure in general.
The rapporteur believes that the Joint Programme should be autonomous and should integrate nature conservation policy and other policy areas such as general environmental policy, agriculture, forestry, regional development and fisheries, etc. This opens up new prospects, e.g. for integrating agricultural land taken out of production, reafforestation, conservation and recreation. Secondary functions of nature, such as combating erosion and water purification, can also be included. The Programme can also be used to indicate areas where there is a need for more stringent quality standards in respect of pollution.

It is important to bear in mind that nature conservation, as described above, can make a valuable contribution to combating unemployment and reducing the number of people leaving rural areas.

6. Marine life

Marine life must not be forgotten in the Joint Programme. By analogy with the situation on land, a network of conservation areas must be developed to include areas designated as breeding grounds and nurseries for commercially important species of fish. The fisheries sector should contribute to the financing of the conservation of these areas. This network can also be used as a planning tool in sectors other than nature conservation, e.g. fisheries, the off-shore industry (including oil production) and maritime transport. The Directive on Environmental Impact Assessment must also be expanded to include provisions on marine projects.

The concept of marine conservation areas will also require greater attention, for example in respect of the beaches where turtles lay eggs and the habitats of monk seals (both of which are endangered species). Nature conservation and coastal development will have to be integrated wherever possible. This is to say that efforts will also be made to make some financial profit out of these natural areas, in particular through appropriate tourism, possibly combined with education and research. There are a number of financially reasonably viable natural areas in Europe such as the Bayerischer Wald in Germany, the Abruzzo National Park in Italy and Plitvice in Yugoslavia. There are various potential sources of funding for establishing of marine parks, e.g. the EC nature conservation funds, the Integrated Development Programmes, the national governments, the European Investment Bank and possibly private investors.

7. Amendments

Because of factual inaccuracies in the translation into Dutch of the original English text, the rapporteur has opted for amendments to the English version.

The amendments proposed by the rapporteur are based on Parliament's resolutions referred to above on the Birds Directive and the Berne and Bonn Conventions. For a general justification of the amendments, please see the reports in question. The section deals only with a number of principles and new aspects. The rapporteur's amendments have been developed with the cooperation of, and in consultation with, nature conservation organizations, the latter coordinated by the European Environmental Bureau (EEB), the Royal Society for the Protection of Birds (RSPB) and the World Wide Fund for Nature (WWF), and account has also been taken of criticisms and recommendations made by hunting organizations, e.g. FACE (Fédération des Associations de Chasseurs de la CEE), the umbrella organization.
One generally recognized problem in nature conservation at EC level is the structural shortage of funds and staff. Amendments to the proposed decision call on the Commission to provide sufficient staff and to create sufficient financial resources to ensure adequate implementation of the Habitat Directive and European nature conservation in general. One aspect which is not easy to integrate in the Council proposal is the involvement of an EC Environment Inspectorate. This Inspectorate should also be involved in the international coordination of research into bottlenecks and in highlighting shortcomings in monitoring, in support of national monitoring agencies. Parliament has called for this on a number of occasions, and the rapporteur hopes that, in the very near future, the Commission will submit a proposal for creating an EC Environment Inspectorate. The most appropriate home for this body would be in the new Environmental Agency proposed by President Delors.

A number of concepts in the Habitat Directive which are unclear or difficult to quantify need to be replaced. This applies in particular to the expression 'satisfactory level', with regard to the status of species (Articles 5 and 14), which is so vague and undefined that clarification is needed. The term proposed by the rapporteur, 'satisfactory conservation status', with the appropriate definition, is in line with the definition used in the Bonn Convention. The Ramsar Convention on Wetlands also contains a definition which might be more appropriate.

Since the rapporteur realized that there is considerable uncertainty about the numbers of special protected areas to be classified, he has tabled an amendment in an effort to create clarity: the principal areas for each species and habitat included in Annex I and for each threatened habitat included in Annex IV must be classified. Moreover, since many species share the same environment and the areas of such habitats are also included in Annex IV, there is quite considerable overlap. Since all the countries in question and the EC are already in possession of quite considerable information on the areas to be classified, the rapporteur regards the period of eight years for such classification as much too long. Four years is both technically and administratively feasible and, given the deplorable state of nature conservation areas, reflects far more closely the spirit of the Habitat Directive itself.

As regards the size of areas requiring strict protection, the rapporteur is surprised that the Commission is in favour of a ‘maximum’ of between 1 and 2% of the total surface area of each Member State. This restriction is quite superfluous, particularly when it is borne in mind that a lot of marine areas are also eligible for protection. It would also be unreasonable with regard to those Member States which have already designated quite large numbers of special protection areas.

Since the directive has only very generalized provisions concerning the prevention of pollution or degradation of natural and semi-natural habitats, such prevention must be explicitly stimulated; the rapporteur proposes that the Regulation on environmentally sensitive agricultural areas (Regulation 1760/87) should be used for this purpose.
8. The Annexes and amendments thereto

When the Commission first submitted the proposal for a directive, it included only outline annexes, thus creating a great deal of uncertainty and confusion. The Commission has now remedied this situation by setting out the full text of all the Annexes.

The Habitat Directive contains 12 annexes:

I (a and b) Animals and plants whose habitats are threatened in the Community
II (a and b) Animals and plants which are threatened in the Community
III (a and b) Animals and plants whose exploitation should be subject to a management plan
IV Natural and semi-natural habitats under threat in the Community
V (a) Criteria for classification of areas as special protection areas of European Significance for Nature Conservation to be applied within the first two years after entry into force of the directive
V (b) Criteria for classification of areas as special protection areas of European Significance for Nature Conservation
VI Information for the transmission of data about the classification of special protection areas
VII Types of distinct landscape features of outstanding local importance to wildlife
VIII Management plan for exploitable species of wild fauna and flora specified in accordance with Annexes III(a) and III(b)
IX Prohibited methods and means of capture and killing and modes of transport
X Notices concerning the classification of areas as special protection areas
XI Research used as a basis for the protection, management and use of species referred to in Article 1
XII List of areas.

The rapporteur sees no reason for altering this list of titles of annexes. They are in line with both the letter and the spirit of the articles of the Habitat Directive whether or not amended in accordance with the rapporteur's proposals. The precise provisions of these annexes will therefore have to be fully in line with these titles. In the rapporteur's opinion, annexes which are more restricted in scope are unacceptable.

Annex I(a) - Animals - fails to include a number of species whose habitats are threatened in the Community (and which appear in Appendix II of the Berne Convention) (for example a number of species of butterfly of the order Lepidoptera). Since the directive quite rightly focusses primarily on the protection of habitats, Annex I(a) should be much more comprehensive as regards animals whose habitats are under threat. The rapporteur has added only a few examples.

The Commission text of Annex I(b) - Plants - contains only part of the full list of species whose habitats are threatened in the Community. 351 species are listed whereas a complete list of threatened and vulnerable plants would number some 1124.
At least 166 extra species of plants should be added to the 351 now listed, and the rapporteur proposes to amend the Annex accordingly. Even then the list must be seen as a minimum. The lower plants are under represented, there being only about ten on the Commission’s list. There are at least 200 species of lichen, virtually all of which are under threat as a result of the degradation of their habitats. The Commission has included only two of them.

Annex II(a) - species of animals threatened in the Community - proposed by the Commission can be shortened by including all the species listed in Annex I(a) and adding other species that are threatened as a result of taking, capture, deliberate destruction, injury, killing, disturbance, etc. (as set out in Article 12). For example, (Coleoptera) Lucanus cervus can be omitted from the present Annex since it is a beetle which is not a threatened species nor is its habitat under threat.

However, the rapporteur suggests that the sand boa (Eryx jaculus, Boidae) should be included as it is extremely sought after by collectors. The exception that the Commission wishes to make for Spanish populations of the wolf (Canis lupus) is totally unjustified and should be removed. The rapporteur has tabled a corresponding amendment to Annex III.

Annex II(b) - species of plants threatened in the Community - should include all 1956 worldwide threatened species of plant occurring in the Community, as well as the 296 species that are threatened in the Community (but not worldwide). The Annex proposed by the Commission contains only 427 species. For the purposes of nature conservation, Annex II(b) must be regarded as a minimum list which cannot be cut. All the species covered by Annex I(b) should be incorporated into this Annex. The amendments proposed by the rapporteur to Annex I(a) must therefore also be made to Annex II(b).

In certain cases the rapporteur suggests that all species of certain genera should be included.

Annex III(a) - Animals whose exploitation should be subject to a management plan - includes, wrongly in the rapporteur’s view, the Spanish populations of the wolf (Canis lupus). These populations are also under threat and to include them in this Annex is to undermine the Berne Convention, which lists the wolf among the protected species, something to which the Community has never objected in the past. In other words, by allowing a derogation for the Spanish wolf populations the Community is jeopardizing the implementation of the Berne Convention.

The failure to include the salmon in salt waters (Salmo salar) is an error given the scale of sea fishing for this species.

Annex III(b) - Plants whose exploitation should be subject to a management plan - would be a great deal more valuable for certain species if the problem were tackled from the opposite angle so that no species of wild plant could be commercially exploited unless the management plan criteria were fulfilled. Since this is not feasible, the rapporteur proposes a number of amendments to supplement the list.
The Commission's proposed Annex IV - Natural and semi-natural habitats to be protected within the Community - is fairly complete in the case of land habitats in the Community. As regards marine and freshwater habitats, however, the list is less satisfactory. The CORINE system, on which the classification is based, is not always clear. This is the case, for example, with river biotic communities many of which are under threat. The list of heaths should also include a number of lowland heaths in the United Kingdom and northern France which are seriously under threat. Also missing are a number of woodland areas, particularly many threatened river woodlands.

The rapporteur therefore proposes to add a number of habitat types.

Annex V classification criteria needs to be amended with regard to the period within which areas must be classified since there is no need to provide arbitrary figures with regard to the areas in question; ecological necessity and potential should be the guiding principles.

The categories in Annex VII - Types of distinct landscape features of outstanding local importance to wildlife - are so vague that they are useless. For example a small garden pond would also be covered by the directive. The Commission should draw up a more extensive and highly specific list.

Annex VIII - Management plan for exploitable species satisfies a wish frequently expressed by Parliament. This annex, which gives the objectives for management plans for exploitation of specific species, needs to be expanded to include regulations to the effect that

- exploitation must not cause damage to the status of species other than the exploited species, nor must it harm their or other habitats,
- the best possible techniques and methods must be used and the professional skills of the persons involved in the exploitation be such that the pain suffered by animals when captured or killed is minimal.

This latter point is intended to prevent unnecessary cruelty during hunting, and it fully reflects previous resolutions adopted by Parliament.

Annex IX - Prohibited methods and means of capture and killing and modes of transport of mammals and fish, will also have to be made applicable to other species. There is the example of the exploitation of red coral using drag rods which destroys the entire local benthic system.