

## II

*(Acts whose publication is not obligatory)*

## COUNCIL

## COUNCIL DIRECTIVE 92/43/EEC

of 21 May 1992

on the conservation of natural habitats and of wild fauna and flora

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 130s thereof,

Having regard to the proposal from the Commission <sup>(1)</sup>,

Having regard to the opinion of the European Parliament <sup>(2)</sup>,

Having regard to the opinion of the Economic and Social Committee <sup>(3)</sup>,

Whereas the preservation, protection and improvement of the quality of the environment, including the conservation of natural habitats and of wild fauna and flora, are an essential objective of general interest pursued by the Community, as stated in Article 130r of the Treaty;

Whereas the European Community policy and action programme on the environment (1987 to 1992) <sup>(4)</sup> makes provision for measures regarding the conservation of nature and natural resources;

Whereas, the main aim of this Directive being to promote the maintenance of biodiversity, taking account of economic, social, cultural and regional requirements, this Directive makes a contribution to the general objective of sustainable development; whereas the maintenance of such biodiversity may in certain cases require the maintenance, or indeed the encouragement, of human activities;

Whereas, in the European territory of the Member States, natural habitats are continuing to deteriorate and an increasing number of wild species are seriously threatened; whereas given that the threatened habitats and species form part of the Community's natural heritage and the threats to them are often of a transboundary nature, it is necessary to take measures at Community level in order to conserve them;

Whereas, in view of the threats to certain types of natural habitat and certain species, it is necessary to define them as having priority in order to favour the early implementation of measures to conserve them;

Whereas, in order to ensure the restoration or maintenance of natural habitats and species of Community interest at a favourable conservation status, it is necessary to designate special areas of conservation in order to create a coherent European ecological network according to a specified timetable;

Whereas all the areas designated, including those classified now or in the future as special protection areas pursuant to Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds <sup>(5)</sup>, will have to be incorporated into the coherent European ecological network;

Whereas it is appropriate, in each area designated, to implement the necessary measures having regard to the conservation objectives pursued;

Whereas sites eligible for designation as special areas of conservation are proposed by the Member States but whereas

<sup>(1)</sup> OJ No C 247, 21. 9. 1988, p. 3 and OJ No C 195, 3. 8. 1990, p. 1.

<sup>(2)</sup> OJ No C 75, 20. 3. 1991, p. 12.

<sup>(3)</sup> OJ No C 31, 6. 2. 1991, p. 25.

<sup>(4)</sup> OJ No C 328, 7. 12. 1987, p. 1.

<sup>(5)</sup> OJ No L 103, 25. 4. 1979, p. 1. Directive as last amended by Directive 91/244/ECC (OJ No L 115, 8. 5. 1991, p. 41).

a procedure must nevertheless be laid down to allow the designation in exceptional cases of a site which has not been proposed by a Member State but which the Community considers essential for either the maintenance or the survival of a priority natural habitat type or a priority species;

Whereas an appropriate assessment must be made of any plan or programme likely to have a significant effect on the conservation objectives of a site which has been designated or is designated in future;

Whereas it is recognized that the adoption of measures intended to promote the conservation of priority natural habitats and priority species of Community interest is a common responsibility of all Member States; whereas this may, however, impose an excessive financial burden on certain Member States given, on the one hand, the uneven distribution of such habitats and species throughout the Community and, on the other hand, the fact that the 'polluter pays' principle can have only limited application in the special case of nature conservation;

Whereas it is therefore agreed that, in this exceptional case, a contribution by means of Community co-financing should be provided for within the limits of the resources made available under the Community's decisions;

Whereas land-use planning and development policies should encourage the management of features of the landscape which are of major importance for wild fauna and flora;

Whereas a system should be set up for surveillance of the conservation status of the natural habitats and species covered by this Directive;

Whereas a general system of protection is required for certain species of flora and fauna to complement Directive 79/409/EEC; whereas provision should be made for management measures for certain species, if their conservation status so warrants, including the prohibition of certain means of capture or killing, whilst providing for the possibility of derogations on certain conditions;

Whereas, with the aim of ensuring that the implementation of this Directive is monitored, the Commission will periodically prepare a composite report based, *inter alia*, on the information sent to it by the Member States regarding the application of national provisions adopted under this Directive;

Whereas the improvement of scientific and technical knowledge is essential for the implementation of this Directive; whereas it is consequently appropriate to encourage the necessary research and scientific work;

Whereas technical and scientific progress mean that it must be possible to adapt the Annexes; whereas a procedure should be established whereby the Council can amend the Annexes;

Whereas a regulatory committee should be set up to assist the Commission in the implementation of this Directive and in

particular when decisions on Community co-financing are taken;

Whereas provision should be made for supplementary measures governing the reintroduction of certain native species of fauna and flora and the possible introduction of non-native species;

Whereas education and general information relating to the objectives of this Directive are essential for ensuring its effective implementation,

HAS ADOPTED THIS DIRECTIVE:

### Definitions

#### Article 1

For the purpose of this Directive:

- (a) *conservation* means a series of measures required to maintain or restore the natural habitats and the populations of species of wild fauna and flora at a favourable status as defined in (e) and (i);
- (b) *natural habitats* means terrestrial or aquatic areas distinguished by geographic, abiotic and biotic features, whether entirely natural or semi-natural;
- (c) *natural habitat types of Community interest* means those which, within the territory referred to in Article 2:
  - (i) are in danger of disappearance in their natural range;
  - or
  - (ii) have a small natural range following their regression or by reason of their intrinsically restricted area;
  - or
  - (iii) present outstanding examples of typical characteristics of one or more of the five following biogeographical regions: Alpine, Atlantic, Continental, Macaronesian and Mediterranean.

Such habitat types are listed or may be listed in Annex I;

- (d) *priority natural habitat types* means natural habitat types in danger of disappearance, which are present on the territory referred to in Article 2 and for the conservation of which the Community has particular responsibility in view of the proportion of their natural range which falls within the territory referred to in Article 2; these priority natural habitat types are indicated by an asterisk (\*) in Annex I;
- (e) *conservation status of a natural habitat* means the sum of the influences acting on a natural habitat and its

typical species that may affect its long-term natural distribution, structure and functions as well as the long-term survival of its typical species within the territory referred to in Article 2.

The conservative status of a natural habitat will be taken as 'favourable' when:

- its natural range and areas it covers within that range are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable as defined in (i);

(f) *habitat of a species* means an environment defined by specific abiotic and biotic factors, in which the species lives at any stage of its biological cycle;

(g) *species of Community interest* means species which, within the territory referred to in Article 2, are:

- (i) endangered, except those species whose natural range is marginal in that territory and which are not endangered or vulnerable in the western palearctic region; or
- (ii) vulnerable, i.e. believed likely to move into the endangered category in the near future if the causal factors continue operating; or
- (iii) rare, i.e. with small populations that are not at present endangered or vulnerable, but are at risk. The species are located within restricted geographical areas or are thinly scattered over a more extensive range; or
- (iv) endemic and requiring particular attention by reason of the specific nature of their habitat and/or the potential impact of their exploitation on their habitat and/or the potential impact of their exploitation on their conservation status.

Such species are listed or may be listed in Annex II and/or Annex IV or V;

(h) *priority species* means species referred to in (g) (i) for the conservation of which the Community has particular responsibility in view of the proportion of their natural range which falls within the territory referred to in Article 2; these priority species are indicated by an asterisk (\*) in Annex II;

(i) *conservation status of a species* means the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations within the territory referred to in Article 2;

The *conservation status* will be taken as 'favourable' when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis;

(j) *site* means a geographically defined area whose extent is clearly delineated;

(k) *site of Community importance* means a site which, in the biogeographical region or regions to which it belongs, contributes significantly to the maintenance or restoration at a favourable conservation status of a natural habitat type in Annex I or of a species in Annex II and may also contribute significantly to the coherence of Natura 2000 referred to in Article 3, and/or contributes significantly to the maintenance of biological diversity within the biogeographic region or regions concerned.

For animal species ranging over wide areas, sites of Community importance shall correspond to the places within the natural range of such species which present the physical or biological factors essential to their life and reproduction;

(l) *special area of conservation* means a site of Community importance designated by the Member States through a statutory, administrative and/or contractual act where the necessary conservation measures are applied for the maintenance or restoration, at a favourable conservation status, of the natural habitats and/or the populations of the species for which the site is designated;

(m) *specimen* means any animal or plant, whether alive or dead, of the species listed in Annex IV and Annex V, any part or derivative thereof, as well as any other goods which appear, from an accompanying document, the packaging or a mark or label, or from any other circumstances, to be parts or derivatives of animals or plants of those species;

(n) *the committee* means the committee set up pursuant to Article 20.

#### Article 2

1. The aim of this Directive shall be to contribute towards ensuring bio-diversity through the conservation of natural

habitats and of wild fauna and flora in the European territory of the Member States to which the Treaty applies.

2. Measures taken pursuant to this Directive shall be designed to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest.

3. Measures taken pursuant to this Directive shall take account of economic, social and cultural requirements and regional and local characteristics.

### Conservation of natural habitats and habitats of species

#### Article 3

1. A coherent European ecological network of special areas of conservation shall be set up under the title Natura 2000. This network, composed of sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II, shall enable the natural habitat types and the species' habitats concerned to be maintained or, where appropriate, restored at a favourable conservation status in their natural range.

The Natura 2000 network shall include the special protection areas classified by the Member States pursuant to Directive 79/409/EEC.

2. Each Member State shall contribute to the creation of Natura 2000 in proportion to the representation within its territory of the natural habitat types and the habitats of species referred to in paragraph 1. To that effect each Member State shall designate, in accordance with Article 4, sites as special areas of conservation taking account of the objectives set out in paragraph 1.

3. Where they consider it necessary, Member States shall endeavour to improve the ecological coherence of Natura 2000 by maintaining, and where appropriate developing, features of the landscape which are of major importance for wild fauna and flora, as referred to in Article 10.

#### Article 4

1. On the basis of the criteria set out in Annex III (Stage 1) and relevant scientific information, each Member State shall propose a list of sites indicating which natural habitat types in Annex I and which species in Annex II that are native to its territory the sites host. For animal species ranging over wide areas these sites shall correspond to the places within the natural range of such species which present the physical or biological factors essential to their life and reproduction. For aquatic species which range over wide areas, such sites will be

proposed only where there is a clearly identifiable area representing the physical and biological factors essential to their life and reproduction. Where appropriate, Member States shall propose adaptation of the list in the light of the results of the surveillance referred to in Article 11.

The list shall be transmitted to the Commission, within three years of the notification of this Directive, together with information on each site. That information shall include a map of the site, its name, location, extent and the data resulting from application of the criteria specified in Annex III (Stage 1) provided in a format established by the Commission in accordance with the procedure laid down in Article 21.

2. On the basis of the criteria set out in Annex III (Stage 2) and in the framework both of each of the five biogeographical regions referred to in Article 1 (c) (iii) and of the whole of the territory referred to in Article 2 (1), the Commission shall establish, in agreement with each Member State, a draft list of sites of Community importance drawn from the Member States' lists identifying those which lost one or more priority natural habitat types or priority species.

Member States whose sites hosting one or more priority natural habitat types and priority species represent more than 5% of their national territory may, in agreement with the Commission, request that the criteria listed in Annex III (Stage 2) be applied more flexibly in selecting all the sites of Community importance in their territory.

The list of sites selected as sites of Community importance, identifying those which host one or more priority natural habitat types or priority species, shall be adopted by the Commission in accordance with the procedure laid down in Article 21.

3. The list referred to in paragraph 2 shall be established within six years of the notification of this Directive.

4. Once a site of Community importance has been adopted in accordance with the procedure laid down in paragraph 2, the Member State concerned shall designate that site as a special area of conservation as soon as possible and within six years at most, establishing priorities in the light of the importance of the sites for the maintenance or restoration, at a favourable conservation status, of a natural habitat type in Annex I or a species in Annex II and for the coherence of Natura 2000, and in the light of the threats of degradation or destruction to which those sites are exposed.

5. As soon as a site is placed on the list referred to in the third subparagraph of paragraph 2 it shall be subject to Article 6 (2), (3) and (4).

#### *Article 5*

1. In exceptional cases where the Commission finds that a national list as referred to in Article 4 (1) fails to mention a site hosting a priority natural habitat type or priority species which, on the basis of relevant and reliable scientific information, it considers to be essential for the maintenance of that priority natural habitat type or for the survival of that priority species, a bilateral consultation procedure shall be initiated between that Member State and the Commission for the purpose of comparing the scientific data used by each.

2. If, on expiry of a consultation period not exceeding six months, the dispute remains unresolved, the Commission shall forward to the Council a proposal relating to the selection of the site as a site of Community importance.

3. The Council, acting unanimously, shall take a decision within three months of the date of referral.

4. During the consultation period and pending a Council decision, the site concerned shall be subject to Article 6 (2).

#### *Article 6*

1. For special areas of conservation, Member States shall establish the necessary conservation measures involving, if need be, appropriate management plans specifically designed for the sites or integrated into other development plans, and appropriate statutory, administrative or contractual measures which correspond to the ecological requirements of the natural habitat types in Annex I and the species in Annex II present on the sites.

2. Member States shall take appropriate steps to avoid, in the special areas of conservation, the deterioration of natural habitats and the habitats of species as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of this Directive.

3. Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only

after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

4. If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.

#### *Article 7*

Obligations arising under Article 6 (2), (3) and (4) of this Directive shall replace any obligations arising under the first sentence of Article 4 (4) of Directive 79/409/EEC in respect of areas classified pursuant to Article 4 (1) or similarly recognized under Article 4 (2) thereof, as from the date of implementation of this Directive or the date of classification or recognition by a Member State under Directive 79/409/EEC, where the latter date is later.

#### *Article 8*

1. In parallel with their proposals for sites eligible for designation as special areas of conservation, hosting priority natural habitat types and/or priority species, the Member States shall send, as appropriate, to the Commission their estimates relating to the Community co-financing which they consider necessary to allow them to meet their obligations pursuant to Article 6 (1).

2. In agreement with each of the Member States concerned, the Commission shall identify, for sites of Community importance for which co-financing is sought, those measures essential for the maintenance or re-establishment at a favourable conservation status of the priority natural habitat types and priority species on the sites concerned, as well as the total costs arising from those measures.

3. The Commission, in agreement with the Member States concerned, shall assess the financing, including co-financing, required for the operation of the measures referred to in paragraph 2, taking into account, amongst other things, the concentration on the Member State's territory of priority natural habitat types and/or priority species and the relative burdens which the required measures entail.

4. According to the assessment referred to in paragraphs 2 and 3, the Commission shall adopt, having regard to the available sources of funding under the relevant Community instruments and according to the procedure set out in Article 21, a prioritized action framework of measures involving co-financing to be taken when the site has been designated under Article 4 (4).

5. The measures which have not been retained in the action framework for lack of sufficient resources, as well as those included in the abovementioned action framework which have not received the necessary co-financing or have only been partially co-financed, shall be reconsidered in accordance with the procedure set out in Article 21, in the context of the two-yearly review of the action framework and may, in the meantime, be postponed by the Member States pending such review. This review shall take into account, as appropriate, the new situation of the site concerned.

6. In areas where the measures dependent on co-financing are postponed, Member States shall refrain from any new measures likely to result in deterioration of those areas.

#### *Article 9*

The Commission, acting in accordance with the procedure laid down in Article 21, shall periodically review the contribution of Natura 2000 towards achievement of the objectives set out in Article 2 and 3. In this context, a special area of conservation may be considered for declassification where this is warranted by natural developments noted as a result of the surveillance provided for in Article 11.

#### *Article 10*

Member States shall endeavour, where they consider it necessary, in their land-use planning and development policies and, in particular, with a view to improving the ecological coherence of the Natura 2000 network, to encourage the management of features of the landscape which are of major importance for wild fauna and flora.

Such features are those which, by virtue of their linear and continuous structure (such as rivers with their banks or the traditional systems for marking field boundaries) or their function as stepping stones (such as ponds or small woods),

are essential for the migration, dispersal and genetic exchange of wild species.

#### *Article 11*

Member States shall undertake surveillance of the conservation status of the natural habitats and species referred to in Article 2 with particular regard to priority natural habitat types and priority species.

#### **Protection of species**

#### *Article 12*

1. Member States shall take the requisite measures to establish a system of strict protection for the animal species listed in Annex IV (a) in their natural range, prohibiting:

- (a) all forms of deliberate capture or killing of specimens of these species in the wild;
- (b) deliberate disturbance of these species, particularly during the period of breeding, rearing, hibernation and migration;
- (c) deliberate destruction or taking of eggs from the wild;
- (d) deterioration or destruction of breeding sites or resting places.

2. For these species, Member States shall prohibit the keeping, transport and sale or exchange, and offering for sale or exchange, of specimens taken from the wild, except for those taken legally before this Directive is implemented.

3. The prohibition referred to in paragraph 1 (a) and (b) and paragraph 2 shall apply to all stages of life of the animals to which this Article applies.

4. Member States shall establish a system to monitor the incidental capture and killing of the animal species listed in Annex IV (a). In the light of the information gathered, Member States shall take further research or conservation measures as required to ensure that incidental capture and killing does not have a significant negative impact on the species concerned.

#### *Article 13*

1. Member States shall take the requisite measures to establish a system of strict protection for the plant species listed in Annex IV (b), prohibiting:

- (a) the deliberate picking, collecting, cutting, uprooting or destruction of such plants in their natural range in the wild;
- (b) the keeping, transport and sale or exchange and offering for sale or exchange of specimens of such species taken in the wild, except for those taken legally before this Directive is implemented.

2. The prohibitions referred to in paragraph 1 (a) and (b) shall apply to all stages of the biological cycle of the plants to which this Article applies.

#### Article 14

1. If, in the light of the surveillance provided for in Article 11, Member States deem it necessary, they shall take measures to ensure that the taking in the wild of specimens of species of wild fauna and flora listed in Annex V as well as their exploitation is compatible with their being maintained at a favourable conservation status.

2. Where such measures are deemed necessary, they shall include continuation of the surveillance provided for in Article 11. Such measures may also include in particular:

- regulations regarding access to certain property,
- temporary or local prohibition of the taking of specimens in the wild and exploitation of certain populations,
- regulation of the periods and/or methods of taking specimens,
- application, when specimens are taken, of hunting and fishing rules which take account of the conservation of such populations,
- establishment of a system of licences for taking specimens or of quotas,
- regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens,
- breeding in captivity of animal species as well as artificial propagation of plant species, under strictly controlled conditions, with a view to reducing the taking of specimens of the wild,
- assessment of the effect of the measures adopted.

#### Article 15

In respect of the capture or killing of species of wild fauna listed in Annex V (a) and in cases where, in accordance with

Article 16, derogations are applied to the taking, capture or killing of species listed in Annex IV (a), Member States shall prohibit the use of all indiscriminate means capable of causing local disappearance of, or serious disturbance to, populations of such species, and in particular:

- (a) use of the means of capture and killing listed in Annex VI (a);
- (b) any form of capture and killing from the modes of transport referred to in Annex VI (b).

#### Article 16

1. Provided that there is no satisfactory alternative and the derogation is not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range, Member States may derogate from the provisions of Articles 12, 13, 14 and 15 (a) and (b):

- (a) in the interest of protecting wild fauna and flora and conserving natural habitats;
- (b) to prevent serious damage, in particular to crops, livestock, forests, fisheries and water and other types of property;
- (c) in the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment;
- (d) for the purpose of research and education, of repopulating and re-introducing these species and for the breeding operations necessary for these purposes, including the artificial propagation of plants;
- (e) to allow, under strictly supervised conditions, on a selective basis and to a limited extent, the taking or keeping of certain specimens of the species listed in Annex IV in limited numbers specified by the competent national authorities.

2. Member States shall forward to the Commission every two years a report in accordance with the format established by the Committee on the derogations applied under paragraph 1. The Commission shall give its opinion on these derogations within a maximum time limit of 12 months following receipt of the report and shall give an account to the Committee.

3. The reports shall specify:

- (a) the species which are subject to the derogations and the reason for the derogation, including the nature of the risk, with, if appropriate, a reference to alternatives rejected and scientific data used;

- (b) the means, devices or methods authorized for the capture or killing of animal species and the reasons for their use;
- (c) the circumstances of when and where such derogations are granted;
- (d) the authority empowered to declare and check that the required conditions obtain and to decide what means, devices or methods may be used, within what limits and by what agencies, and which persons are to carry but the task;
- (e) the supervisory measures used and the results obtained.

### Information

#### Article 17

1. Every six years from the date of expiry of the period laid down in Article 23, Member States shall draw up a report on the implementation of the measures taken under this Directive. This report shall include in particular information concerning the conservation measures referred to in Article 6 (1) as well as evaluation of the impact of those measures on the conservation status of the natural habitat types of Annex I and the species in Annex II and the main results of the surveillance referred to in Article 11. The report, in accordance with the format established by the committee, shall be forwarded to the Commission and made accessible to the public.

2. The Commission shall prepare a composite report based on the reports referred to in paragraph 1. This report shall include an appropriate evaluation of the progress achieved and, in particular, of the contribution of Natura 2000 to the achievement of the objectives set out in Article 3. A draft of the part of the report covering the information supplied by a Member State shall be forwarded to the Member State in question for verification. After submission to the committee, the final version of the report shall be published by the Commission, not later than two years after receipt of the reports referred to in paragraph 1, and shall be forwarded to the Member States, the European Parliament, the Council and the Economic and Social Committee.

3. Member States may mark areas designated under this Directive by means of Community notices designed for that purpose by the committee.

### Research

#### Article 18

1. Member States and the Commission shall encourage the necessary research and scientific work having regard to

the objectives set out in Article 2 and the obligation referred to in Article 11. They shall exchange information for the purposes of proper coordination of research carried out at Member State and at Community level.

2. Particular attention shall be paid to scientific work necessary for the implementation of Articles 4 and 10, and transboundary cooperative research between Member States shall be encouraged.

### Procedure for amending the Annexes

#### Article 19

Such amendments as are necessary for adapting Annexes I, II, III, V and VI to technical and scientific progress shall be adopted by the Council acting by qualified majority on a proposal from the Commission.

Such amendments as are necessary for adapting Annex IV to technical and scientific progress shall be adopted by the Council acting unanimously on a proposal from the Commission.

### Committee

#### Article 20

The Commission shall be assisted by a committee consisting of representatives of the Member States and chaired by a representative of the Commission.

#### Article 21

1. 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.

2. The Commission shall adopt the measures envisaged if they are in accordance with the opinion of the committee.

If the measures envisaged are not in accordance with the opinion of the committee, or if no opinion is delivered, the Commission shall, without delay, submit to the Council a



proposal relating to the measures to be taken. The Council shall act by a qualified majority.

If, on the expiry of three months from the date of referral to the Council, the Council has not acted, the proposed measures shall be adopted by the Commission.

#### Supplementary provisions

##### Article 22

In implementing the provisions of this Directive, Member States shall:

- (a) study the desirability of re-introducing species in Annex IV that are native to their territory where this might contribute to their conservation, provided that an investigation, also taking into account experience in other Member States or elsewhere, has established that such re-introduction contributes effectively to re-establishing these species at a favourable conservation status and that it takes place only after proper consultation of the public concerned;
- (b) ensure that the deliberate introduction into the wild of any species which is not native to their territory is regulated so as not to prejudice natural habitats within their natural range or the wild native fauna and flora and, if they consider it necessary, prohibit such introduction. The results of the assessment undertaken shall be forwarded to the committee for information;
- (c) promote education and general information on the need to protect species of wild fauna and flora and to conserve their habitats and natural habitats.

#### Final provisions

##### Article 23

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive within two years of its notification. They shall forthwith inform the Commission thereof.

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

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

##### Article 24

This Directive is addressed to the Member States.

Done at Brussels, 21 May 1992.

*For the Council*  
*The President*  
Arlindo MARQUES CUNHA

## ANNEX I

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

## Interpretation

*Code:* The hierarchical classification of habitats produced through the Corine programme <sup>(1)</sup> (Corine biotopes project) is the reference work for this Annex. Most types of natural habitat quoted are accompanied by the corresponding Corine code listed in the Technical Handbook, Volume 1, pp. 73—109, Corine/Biotope/89/2.2, 19 May 1988, partially updated 14 February 1989.

The sign 'x' combining codes indicates associated habitat types, e.g. 35.2 x 64.1 — Open grassland with *Corynephorus* and *Agrostis* (35.2), in combination with continental dunes (64.1).

The sign '\*\*' indicates priority habitat types.

## COSTAL AND HALOPHYTIC HABITATS

## Open sea and tidal areas

11.25	Sandbanks which are slightly covered by sea water all the time
11.34	*Posidonia beds
13.2	Estuaries
14	Mudflats and sandflats not covered by seawater at low tide
21	*Lagoons
—	Large shallow inlets and bays
—	Reefs
—	Marine 'columns' in shallow water made by leaking gases

## Sea cliffs and shingle or stony beaches

17.2	Annual vegetation of drift lines
17.3	Perennial vegetation of stony banks
18.21	Vegetated sea cliffs of the Atlantic and Baltic coasts
18.22	Vegetated sea cliffs of the Mediterranean coasts (with endemic <i>Limonium spp.</i> )
18.23	Vegetated sea cliffs of the Macaronesian coasts (flora endemic to these coasts)

## Atlantic and continental salt marshes and salt meadows

15.11	<i>Salicornia</i> and other annuals colonizing mud and sand
15.12	<i>Spartina</i> swards ( <i>Spartinion</i> )
15.13	Atlantic salt meadows ( <i>Glauco-Puccinellietalia</i> )
15.14	*Continental salt meadows ( <i>Puccinellietalia distantis</i> )

## Mediterranean and thermo-Atlantic salt marshes and salt meadows

15.15	Mediterranean salt meadows ( <i>Juncetalia maritimi</i> )
15.16	Mediterranean and thermo-Atlantic halophilous scrubs ( <i>Arthrocnemetalia fruticosae</i> )
15.17	Iberia halo-nitrophilous scrubs ( <i>Pegano-Salsoletea</i> )

## Salt and gypsum continental steppes

15.18	*Salt steppes ( <i>Limonietalia</i> )
15.19	*Gypsum steppes ( <i>Gypsophiletalia</i> )

<sup>(1)</sup> Corine: Council Decision 85/338/EEC of 27 June 1985 (OJ No L 176, 6. 7. 1985, p. 14).

## COASTAL SAND DUNES AND CONTINENTAL DUNES

## Sea dunes of the Atlantic, North Sea and Baltic coasts

- 16.211 Embryonic shifting dunes
- 16.212 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)
- 16.221 to 16.227 \*Fixed dunes with herbaceous vegetation (grey dunes):
- 16.221 *Galio-Koelerion albescentis*
- 16.222 *Euphorbio-Helichryson*
- 16.223 *Crucianellion maritimae*
- 16.224 *Euphorbia terracina*
- 16.225 *Mesobromion*
- 16.226 *Trifolio-Gerantietea sanguinei*, *Galio maritimi-Geranium sanguinei*
- 16.227 *Thero-Airion*, *Botrychio-Polygaletum*, *Tuberarion guttatae*
- 16.23 \*Decalcified fixed dunes with *Empetrum nigrum*
- 16.24 Eu-atlantic decalcified fixed dunes (*Calluno-Ulicetea*)
- 16.25 Dunes with *Hyppophae rhamnoides*
- 16.26 Dunes with *Salix arenaria*
- 16.29 Wooded dunes of the Atlantic coast
- 16.31 to 16.35 Humid dune slacks
- 1.A Machairs (\* in machairs in Ireland)

## Sea dunes of the Mediterranean coast

- 16.223 *Crucianellion maritimae* fixed beach dunes
- 16.224 Dunes with *Euphorbia terracina*
- 16.228 *Malcolmietalia* dune grasslands
- 16.229 *Brachypodietalia* dune grasslands with annuals
- 16.27 \*Dune juniper thickets (*Juniperus spp.*)
- 16.28 Dune sclerophyllous scrubs (*Cisto-Lavenduletalia*)
- 16.29 x 42.8 \*Wooded dunes with *Pinus pinea* and/or *Pinus pinaster*

## Continental dunes, old and decalcified

- 64.1 x 31.223 Dry sandy heaths with *Calluna* and *Genista*
- 64.1 x 31.227 Dry sandy heaths with *Calluna* and *Empetrum nigrum*
- 64.1 x 35.2 Open grassland with *Corynephorus* and *Agrostis* of continental dunes

## FRESHWATER HABITATS

## Standing water

- 22.11 x 22.31 Oligotrophic waters containing very few minerals of Atlantic sandy plains with amphibious vegetation: *Lobelia*, *Littorelia* and *Isoetes*
- 22.11 x 22.34 Oligotrophic waters containing very few minerals of West Mediterranean sandy plains with *Isoetes*
- 22.12 x (22.31 and 22.32) Oligotrophic waters in medio-European and perialpine area with amphibious vegetation: *Littorella* or *Isoetes* or annual vegetation on exposed banks (*Nanocyperetalia*)
- 22.12 x 22.44 Hard oligo-mesotrophic waters with benthic vegetation of chara fromations
- 22.13 Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition*-type vegetation
- 22.14 Dystrophic lakes
- 22.34 \*Mediterranean temporary ponds
- \*Turloughs (Ireland)

## Running water

- Sections of water courses with natural or semi-natural dynamics (minor, average and major beds) where the water quality shows no significant deterioration
- 24.221 and 24.222 Alpine rivers and the herbaceous vegetation along their banks
- 24.223 Alpine rivers and their ligneous vegetation with *Myricaria germanica*
- 24.224 Alpine rivers and their ligneous vegetation with *Salix elaeagnos*

24.225	Constantly flowing Mediterranean rivers with <i>Glaucium flavum</i>
24.4	Floating vegetation of ranunculus of plane, submountainous rivers
24.52	<i>Chenopodietum rubri</i> of submountainous rivers
24.53	Constantly flowing Mediterranean rivers: <i>Paspalo-Agrostidion</i> and hanging curtains of <i>Salix</i> and <i>Populus alba</i>
—	Intermittently flowing Mediterranean rivers

## TEMPERATE HEATH AND SCRUB

31.11	Northern Atlantic wet heaths with <i>Erica tetralix</i>
31.12	*Southern Atlantic wet heaths with <i>Erica ciliaris</i> and <i>Erica tetralix</i>
31.2	*Dry heaths (all subtypes)
31.234	*Dry coastal heaths with <i>Erica vagans</i> and <i>Ulex maritimus</i>
31.3	*Endemic macaronesian dry heaths
31.4	Alpine and subalpine heaths
31.5	*Scrub with <i>Pinus mugo</i> and <i>Rhododendron hirsutum</i> ( <i>Mugo-Rhododendretum hirsuti</i> )
31.622	Sub-Arctic willow scrub
31.7	Endemic oro-Mediterranean heaths with gorse

## SCLEROPHYLLOUS SCRUB (MATORRAL)

## Sub-Mediterranean and temperate

31.82	Stable <i>Buxus sempervirens</i> formations on calcareous rock slopes ( <i>Berberidion p.</i> )
31.842	Mountain <i>Genista purgans</i> formations
31.88	<i>Juniperus communis</i> formations on calcareous heaths or grasslands
31.89	* <i>Cistus palhinhae</i> formations on maritime wet heaths ( <i>Junipero-Cistetum palhinhae</i> )

## Mediterranean arborescent matorral

32.131 to 32.135	Juniper formations
32.17	*Matorral with <i>Zyziphus</i>
32.18	*Matorral with <i>Laurus nobilis</i>

## Thermo-Mediterranean and pre-steppe brush

32.216	Laurel thickets
32.217	Low formations of euphorbia close to cliffs
32.22 bis 32.26	All types

## Phrygana

33.1	<i>Astragalo-Plantaginetum subulatae phrygana</i>
33.3	<i>Sarcopoterium spinosum phrygana</i>
33.4	Cretan formations ( <i>Euphorbieto-Verbascion</i> )

## NATURAL AND SEMI-NATURAL GRASSLAND FORMATIONS

## Natural grasslands

34.11	*Karstic calcareous grasslands ( <i>Alysso-Sedion albi</i> )
34.12	*Xeric sand calcareous grasslands ( <i>Koelerion glaucae</i> )
34.2	Calaminarian grasslands
36.314	Siliceous Pyrenean grasslands with <i>Festuca eskia</i>
36.32	Siliceous alpine and boreal grass
36.36	Siliceous <i>Festuca indigesta</i> Iberian grasslands
36.41 bis 36.45	Alpine calcareous grasslands
36.5	Macaronesian mountain grasslands

**Semi-natural dry grasslands and scrubland facies**

- 34.31 to 34.34      On calcareous substrates (*Festuco Brometalia*)  
(\* important orchid sites)
- 34.5                \*Pseudo-steppe with grasses and annuals (*Thero-Brachypodietea*)
- 35.1                \*Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas (and  
submountain areas, in continental Europe)

**Sclerophyllous grazed forests (dehesas)**

- 32.11              With *Quercus suber* and/or *Quercus ilex*

**Semi-natural tall-herb humid meadows**

- 37.31              Molinia meadows on chalk and clay (*Eu-Molinion*)
- 37.4                Mediterranean tall-herb and rush meadows (*Molinio-Holoschoenion*)
- 37.7 and 37.8      Eutrophic tall herbs
- *Cnidion venosae* meadows liable to flooding

**Mesophile grasslands**

- 38.2                Lowland hay meadows (*Alopecurus pratensis*, *Sanguisorba officinalis*)
- 38.3                Mountain hay meadows (British types with *Geranium sylvaticum*)

**RAISED BOGS AND MIRES AND FENS****Sphagnum acid bogs**

- 51.1                \*Active raised bogs
- 51.2                Degraded raised bogs  
(still capable of natural regeneration)
- 52.1 and 52.2      Blanket bog (\* active only)
- 54.5                Transition mires and quaking bogs
- 54.6                Depressions on peat substrates (*Rhynchosporion*)

**Calcareous fens**

- 53.3                \*Calcareous fens with *Cladium mariscus* and *Carex davalliana*
- 54.12              \*Petrifying springs with tufa formation (*Cratoneurion*)
- 54.2                Alkaline fens
- 54.3                \*Alpine pioneer formations of *Caricion bicoloris-atrofuscae*

**ROCKY HABITATS AND CAVES****Scree**

- 61.1                Siliceous
- 61.2                Eutric
- 61.3                Western Mediterranean and alpine thermophilous
- 61.4                Balkan
- 61.5                Medio-European siliceous
- 61.6                \*Medio-European calcareous

**Chasmophytic vegetation on rocky slopes**

- 62.1 and 62.1A      Calcareous sub-types
- 62.2                Silicicolous sub-types
- 62.3                Pioneer vegetation of rock surfaces
- 62.4                \*Limestone pavements

**Other rocky habitats**

- 65                  Caves not open to the public
- Fields of lava and natural excavations

- Submerged or partly submerged sea caves
- Permanent glaciers

#### FORESTS

(Sub)natural woodland vegetation comprising native species forming forests of tall trees, with typical undergrowth, and meeting the following criteria: rare or residual, and/or hosting species of Community interest

##### Forests of temperate Europe

- 41.11 *Luzulo-Fagetum* beech forests
- 41.12 Beech forests with *Ilex* and *Taxus*, rich in epiphytes (*Ilici-Fagion*)
- 41.13 *Asperulo-Fagetum* beech forests
- 41.15 Subalpine beech woods with *Acer* and *Rumex arifolius*
- 41.16 Calcareous beech forest (*Cephalanthero-Fagion*)
- 41.24 *Stellario-Carpinetum* oak-hornbeam forests
- 41.26 *Galio-Carpinetum* oak-hornbeam forests
- 41.4 \**Tilio-Acerion* ravine forests
- 41.51 Old acidophilous oak woods with *Quercus robur* on sandy plains
- 41.53 Old oak woods with *Ilex* and *Blechnum* in the British Isles
- 41.86 *Fraxinus angustifolia* woods
- 42.51 \*Caledonian forest
- 44.A1 to 44.A4 \*Bog woodland
- 44.3 \*Residual alluvial forests (*Alnion glutinoso-incanae*)
- 44.4 Mixed oak-elm-ash forests of great rivers

##### Mediterranean deciduous forests

- 41.181 \*Apennine beech forests with *Taxus* and *Ilex*
- 41.184 \*Apennine beech forests with *Abies alba* and beech forests with *Abies nebrodensis*
- 41.6 Galicio-Portuguese oak woods with *Quercus robur* and *Quercus pyrenaica*
- 41.77 *Quercus faginea* woods (Iberian Peninsula)
- 41.85 *Quercus trojana* woods (Italy and Greece)
- 41.9 Chestnut woods
- 41.1A x 42.17 Hellenic beech forests with *Abies borisii-regis*
- 41.1B *Quercus frainetto* woods
- 42.A1 Cypress forests (*Acero-Cupression*)
- 44.17 *Salix alba* and *Populus alba* galleries
- 44.52 Riparian formations on intermittent Mediterranean water courses with *Rhododendron ponticum*, *Salix* and others
- 44.7 Oriental plane woods (*Platanion orientalis*)
- 44.8 Thermo-Mediterranean riparian galleries (*Nerio-Tamariceteae*) and south-west Iberian Peninsula riparian galleries (*Securinegion tinctoriae*)

##### Mediterranean sclerophyllous forests

- 41.7C Cretan *Quercus brachyphylla* forests
- 45.1 *Olea* and *Ceratonia* forests
- 45.2 *Quercus suber* forests
- 45.3 *Quercus ilex* forests
- 45.5 *Quercus macrolepis* forests
- 45.61 to 45.63 \*Macaronesian laurel forests (*Laurus*, *Ocotea*)
- 45.7 \*Palm groves of *Phoenix*
- 45.8 Forests of *Ilex aquifolium*

##### Alpine and subalpine coniferous forests

- 42.21 to 42.23 Acidophilous forests (*Vaccinio-Piceetea*)
- 42.31 and 42.32 Alpine forests with larch and *Pinus cembra*
- 42.4 *Pinus uncinata* forests (\* on gypsum or limestone)

**Mediterranean mountainous coniferous forests**

- 42.14 \*Appenine *Abies alba* and *Picea excelsa* forests
- 42.19 *Abies pinsapo* forests
- 42.61 to 42.66 \*Mediterranean pine forests with endemic black pines
- 42.8 Mediterranean pine forests with endemic Mesogean pines, including *Pinus mugo* and *Pinus leucodermis*
- 42.9 Macaronesian pine forests (endemic)
- 42.A2 to 42.A5 and 42.A8 \*Endemic Mediterranean forests with *Juniperus* spp.
- 42.A6 \**Tetraclinis articulata* forests (Andalusia)
- 42.A71 to 42.A73 \**Taxus baccata* woods
-

## ANNEX II

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

## Interpretation

(a) Annex II follows on from Annex I for the establishment of a consistent network of special areas of conservation.

(b) The species listed in this Annex are indicated:

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

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

(c) *Symbols*

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

Most species listed in this Annex are also listed in Annex IV.

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

(a) *ANIMALS**VERTEBRATES***MAMMALS****INSECTIVORA***Talpidae*

*Galemys pyrenaicus*

**CHIROPTERA***Rhinolophidae*

*Rhinolophus blasii*  
*Rhinolophus euryale*  
*Rhinolophus ferrumequinum*  
*Rhinolophus hipposideros*  
*Rhinolophus mehelyi*

*Vespertilionidae*

*Barbastella barbastellus*  
*Miniopterus schreibersi*  
*Myotis bechsteini*  
*Myotis blythi*  
*Myotis capaccinii*  
*Myotis dasycneme*  
*Myotis emarginatus*  
*Myotis myotis*

**RODENTIA***Sciuridae*

*Spermophilus citellus*

*Castoridae*

*Castor fiber*

*Microtidae*

*Microtus cabreræ*  
 \**Microtus oeconomus arenicola*



**CARNIVORA***Canidae*

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

*Ursidae*

- \**Ursus arctos*

*Mustelidae*

- Lutra lutra*
- Mustela lutreola*

*Felidae*

- Lynx lynx*
- \**Lynx pardina*

*Phocidae*

- Halichoerus grypus* (V)
- \**Monachus monachus*
- Phoca vitulina* (V)

**ARTIODACTYLA***Cervidae*

- \**Cervus elaphus corsicanus*

*Bovidae*

- Capra aegagrus* (natural populations)
- \**Capra pyrenaica pyrenaica*
- Ovis ammon musimon* (natural populations — Corsica and Sardinia)
- Rupicapra rupicapra balcanica*
- \**Rupicapra ornata*

**CETACEA**

- Tursiops truncatus*
- Phocoena phocoena*

**REPTILES****TESTUDINATA***Testudinidae*

- Testudo hermanni*
- Testudo graeca*
- Testudo marginata*

*Cheloniidae*

- \**Caretta caretta*

*Emydidae*

- Emys orbicularis*
- Mauremys caspica*
- Mauremys leprosa*

**SAURIA***Lacertidae*

- Lacerta monticola*
- Lacerta schreiberi*
- Gallotia galloti insulanagae*
- \**Gallotia simonyi*
- Podarcis lilfordi*
- Podarcis pityusensis*

*Scincidae*

- Chalcides occidentalis*

*Gekkonidae*

- Phyllodactylus europaeus*

**OPHIDIA***Colubridae*

- Elaphe quatuorlineata*
- Elaphe situla*

*Viperidae*

- \**Vipera schweizeri*
- Vipera ursinii*

**AMPHIBIANS****CAUDATA***Salamandridae*

- Chioglossa lusitanica*
- Mertensiella luschani*
- \**Salamandra salamandra aurorae*
- Salamandrina terdigitata*
- Triturus cristatus*

*Proteidae*

- Proteus anguinus*

*Plethodontidae*

- Speleomantes ambrosii*
- Speleomantes flavus*
- Speleomantes genei*
- Speleomantes imperialis*
- Speleomantes supramontes*

**ANURA***Discoglossidae*

- Bombina bombina*
- Bombina variegata*
- Discoglossus jeanneae*
- Discoglossus montalentii*
- Discoglossus sardus*
- \**Alytes muletensis*

*Ranidae*

- Rana latastei*

*Pelobatidae*

- \**Pelobates fuscus insubricus*

**FISH****PETROMYZONIFORMES***Petromyzonidae*

- Eudontomyzon* spp. (o)
- Lampetra fluviatilis* (V)
- Lampetra planeri* (o)
- Lethenteron zanandrai* (V)
- Petromyzon marinus* (o)

**ACIPENSERIFORMES***Acipenseridae*

- \**Acipenser naccarii*
- \**Acipenser sturio*

**ATHERINIFORMES***Cyprinodontidae*

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

**SALMONIFORMES***Salmonidae*

- Hucho hucho* (natural populations) (V)
- Salmo salar* (only in fresh water) (V)
- Salmo marmoradus* (o)
- Salmo macrostigma* (o)

*Coregonidae*

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

## CYPRINIFORMES

*Cyprinidae*

*Alburnus vulturius* (o)  
*Alburnus albidus* (o)  
*Anaecypris hispanica*  
*Aspius aspius* (o)  
*Barbus plebejus* (V)  
*Barbus meridionalis* (V)  
*Barbus capito* (V)  
*Barbus comiza* (V)  
*Chalcalburnus chalcoides* (o)  
*Chondrostoma soetta* (o)  
*Chondrostoma polylepis* (o)  
*Chondrostoma genei* (o)  
*Chondrostoma lusitanicum* (o)  
*Chondrostoma toxostoma* (o)  
*Gobio albipinnatus* (o)  
*Gobio uranoscopus* (o)  
*Iberocypris palaciosi* (o)  
 \**Ladigesocypris ghigii* (o)  
*Leuciscus lucomonis* (o)  
*Leuciscus souffia* (o)  
*Phoxinellus* spp. (o)  
*Rutilus pigus* (o)  
*Rutilus rubilio* (o)  
*Rutilus arcasii* (o)  
*Rutilus macrolepidotus* (o)  
*Rutilus lemmingii* (o)  
*Rutilus friesii meidingeri* (o)  
*Rutilus alburnoides* (o)  
*Rhodeus sericeus amarus* (o)  
*Scardinius graecus* (o)

*Cobitidae*

*Cobitis conspersa* (o)  
*Cobitis larvata* (o)  
*Cobitis trichonica* (o)  
*Cobitis taenia* (o)  
*Misgurnis fossilis* (o)  
*Sabanejewia aurata* (o)

## PERCIFORMES

*Percidae*

*Gymnocephalus schraetzer* (V)  
*Zingel* spp. [(o) except *Zingel asper* and *Zingel zingel* (V)]

*Gobiidae*

*Pomatoschistus canestrini* (o)  
*Padogobius panizzai* (o)  
*Padogobius nigricans* (o)

## CLUPEIFORMES

*Clupeidae*

*Alosa* spp. (V)

## SCORPAENIFORMES

*Cottidae*

*Cottus ferruginosus* (o)  
*Cottus petiti* (o)  
*Cottus gobio* (o)

## SILURIFORMES

*Siluridae*

*Silurus aristotelis* (V)

## INVERTEBRATES

## ARTHROPODS

## CRUSTACEA

*Decapoda*

Austropotamobius pallipes (V)

## INSECTA

*Coleoptera*

Buprestis splendens

\*Carabus olympiae

Cerambyx cerdo

Cucujus cinnaberinus

Dytiscus latissimus

Graphoderus bilineatus

Limonicus violaceus (o)

Lucanus cervus (o)

Morimus funereus (o)

\*Osmoderma eremita

\*Rosalia alpina

*Lepidoptera*

\*Callimorpha quadripunctata (o)

Coenonympha oedippus

Erebia calcaria

Erebia christi

Eriogaster catax

Euphydryas aurinia (o)

Graellsia isabellae (V)

Hypodryas maturna

Lycaena dispar

Maculinea nausithous

Maculinea teleius

Melanagria arge

Papilio hospiton

Plebicula golgus

*Mantodea*

Apteromantis aptera

*Odonata*

Coenagrion hylas (o)

Coenagrion mercuriale (o)

Cordulegaster trinacriae

Gomphus graslinii

Leucorrhina pectoralis

Lindenia tetraphylla

Macromia splendens

Ophiogomphus cecilia

Oxygastra curtisii

*Orthoptera*

Baetica ustulata

## MOLLUSCS

## GASTROPODA

Caseolus calculus

Caseolus commixta

Caseolus sphaerula

Discula leacockiana

Discula tabellata

Discus defloratus

Discus guerinianus

Elona quimperiana

Geomalacus maculosus

Geomitra moniziana

Helix subplicata

*Leiostyla abbreviata*  
*Leiostyla cassida*  
*Leiostyla corneocostata*  
*Leiostyla gibba*  
*Leiostyla lamellosa*  
*Vertigo angustior* (o)  
*Vertigo genesii* (o)  
*Vertigo geyeri* (o)  
*Vertigo moulinsiana* (o)

**BIVALVIA***Unionoida*

*Margaritifera margaritifera* (V)  
*Unio crassus*

**(b) PLANTS****PTERIDOPHYTA****ASPLENIACEAE**

*Asplenium jahandiezii* (Litard.) Rouy

**BLECHNACEAE**

*Woodwardia radicans* (L.) Sm.

**DICKSONIACEAE**

*Culcita macrocarpa* C. Presl

**DRYOPTERIDACEAE**

\**Dryopteris corleyi* Fraser-Jenk.

**HYMENOPHYLLACEAE**

*Trichomanes speciosum* Willd.

**ISOETACEAE**

*Isoetes boryana* Durieu  
*Isoetes malinverniana* Ces. & De Not.

**MARSILEACEAE**

*Marsilea batardae* Launert  
*Marsilea quadrifolia* L.  
*Marsilea strigosa* Willd.

**OPHIOGLOSSACEAE**

*Botrychium simplex* Hitchc.  
*Ophioglossum polyphyllum* A. Braun

**GYMNOSPERMAE****PINACEAE**

\**Abies nebrodensis* (Lojac.) Mattei

**ANGIOSPERMAE****ALISMATACEAE**

*Caldesia parnassifolia* (L.) Parl.  
*Luronium natans* (L.) Raf.

**AMARYLLIDACEAE**

*Leucojum nicaense* Ard.  
*Narcissus asturiensis* (Jordan) Pugsley  
*Narcissus calcicola* Mendonça  
*Narcissus cyclamineus* DC.  
*Narcissus fernandesii* G. Pedro  
*Narcissus humilis* (Cav.) Traub

- \**Narcissus nevadensis* Pugsley
- Narcissus pseudonarcissus* L.
  - subsp. *nobilis* (Haw.) A. Fernandes
- Narcissus scaberulus* Henriq.
- Narcissus triandrus* (Salisb.) D. A. Webb
  - subsp. *capax* (Salisb.) D. A. Webb.
- Narcissus viridiflorus* Schousboe

## BORAGINACEAE

- \**Anchusa crispa* Viv.
- \**Lithodora nitida* (H. Ern) R. Fernandes
- Myosotis lusitanica* Schuster
- Myosotis rehsteineri* Wartm.
- Myosotis retusifolia* R. Afonso
- Omphalodes kuzinskyana* Willk.
- \**Omphalodes littoralis* Lehm.
- Solenanthus albanicus* (Degen & al.) Degen & Baldacci
- \**Symphytum cycladense* Pawl.

## CAMPANULACEAE

- Asyneuma giganteum* (Boiss.) Bornm.
- \**Campanula sabatia* De Not.
- Jasione crispa* (Pourret) Samp.
  - subsp. *serpentinica* Pinto da Silva
- Jasione lusitanica* A. DC.

## CARYOPHYLLACEAE

- \**Arenaria nevadensis* Boiss. & Reuter
- Arenaria provincialis* Chater & Halliday
- Dianthus cintranus* Boiss. & Reuter
  - subsp. *cintranus* Boiss. & Reuter
- Dianthus marizii* (Samp.) Samp.
- Dianthus rupicola* Biv.
- \**Gypsophila papillosa* P. Porta
- Herniaria algarvica* Chaudri
- Herniaria berlegiana* (Chaudhri) Franco
- \**Herniaria latifolia* Lapeyr.
  - subsp. *litardierei* gamis
- Herniaria maritima* Link
- Moehringia tommasinii* Marches.
- Petrocoptis grandiflora* Rothm.
- Petrocoptis montsicciana* O. Bolos & Rivas Mart.
- Petrocoptis pseudoviscosa* Fernandez Casas
- Silene cintrana* Rothm.
- \**Silene hicesiae* Brullo & Signorello
- Silene hifacensis* Rouy ex Willk.
- \**Silene holzmanii* Heldr. ex Boiss.
  - Silene longicilia* (Brot.) Otth.
  - Silene mariana* Pau
- \**Silene orphanidis* Boiss.
- \**Silene rothmaleri* Pinto da Silva
- \**Silene velutina* Pourret ex Loisel.

## CHENOPODIACEAE

- \**Bassia saxicola* (Guss.) A. J. Scott
- \**Kochia saxicola* Guss.
- \**Salicornia veneta* Pignatti & Lausi

## CISTACEAE

- Cistus palhinhae* Ingram
- Halimium verticillatum* (Brot.) Sennen
- Helianthemum alypoides* Losa & Rivas Goday
- Helianthemum caput-felis* Boiss.
- \**Tuberaria major* (Willk.) Pinto da Silva & Roseira

## COMPOSITAE

- \**Anthemis glaberrima* (Rech. f.) Greuter
- \**Artemisia granatensis* Boiss.
- \**Aster pyrenaicus* Desf. ex DC.
- \**Aster sorrentinii* (Tod) Lojac.
- \**Carduus myriacanthus* Salzm. ex DC.

- \**Centaurea alba* L.  
  subsp. *heldreichii* (Halacsy) Dostal
- \**Centaurea alba* L.  
  subsp. *princeps* (Boiss. & Heldr.) Gugler
- \**Centaurea attica* Nyman  
  subsp. *megarensis* (Halacsy & Hayek) Dostal
- \**Centaurea balearica* J. D. Rodriguez
- \**Centaurea borjae* Valdes-Berm. & Rivas Goday
- \**Centaurea citricolor* Font Quer  
  *Centaurea corymbosa* Pourret  
  *Centaurea gadorensis* G. Bianca
- \**Centaurea horrida* Badaro
- \**Centaurea kalambakensis* Freyn & Sint.  
  *Centaurea kartschiana* Scop.
- \**Centaurea lactiflora* Halacsy  
  *Centaurea micrantha* Hoffmanns. & Link  
  subsp. *herminii* (Rouy) Dostál
- \**Centaurea niederi* Heldr.
- \**Centaurea peucedanifolia* Boiss. & Orph.
- \**Centaurea pinnata* Pau  
  *Centaurea pulvinata* (G. Bianca) G. Bianca  
  *Centaurea rothmalerana* (Arènes) Dostál  
  *Centaurea vicentina* Mariz
- \**Crepis crocifolia* Boiss. & Heldr.  
  *Crepis granatensis* (Willk.) B. Bianca & M. Cueto  
  *Erigeron frigidus* Boiss. ex DC.  
  *Hymenostemma pseudanthemis* (Kunze) Willd.
- \**Jurinea cyanoides* (L.) Reichenb.
- \**Jurinea fontqueri* Cuatrec.
- \**Lamyropsis microcephala* (Moris) Dittrich & Greuter  
  *Leontodon microcephalus* (Boiss. ex DC.) Boiss.  
  *Leontodon boryi* Boiss.
- \**Leontodon siculus* (Guss.) Finch & Sell  
  *Leuzea longifolia* Hoffmanns. & Link  
  *Ligularia sibirica* (L.) Cass.  
  *Santolina impressa* Hoffmanns. & Link  
  *Santolina semidentata* Hoffmanns. & Link
- \**Senecio elodes* Boiss. ex DC.  
  *Senecio nevadensis* Boiss. & Reuter

#### CONVOLVULACEAE

- \**Convolvulus argyrothamnus* Greuter
- \**Convolvulus Fernandes Pinto da Silva & Teles*

#### CRUCIFERAE

- Alyssum pyrenaicum* Lapeyr.
- Arabis sadina* (Samp.) P. Cout.
- \**Biscutella neustriaca* Bonnet  
  *Biscutella vinentina* (Samp.) Rothm.  
  *Boleum asperum* (Pers.) Desvaux  
  *Brassica glabrescens* Poldini  
  *Brassica insularis* Moris
- \**Brassica macrocarpa* Guss.  
  *Coincya cintrana* (P. Cout.) Pinto da Silva
- \**Coincya rupestris* Rouy
- \**Coronopus navasii* Pau  
  *Diplotaxis ibicensis* (Pau) Gomez-Campo
- \**Diplotaxis siettiana* Maire  
  *Diplotaxis vinentina* (P. Cout.) Rothm.  
  *Erucastrum palustre* (Pirona) Vis.
- \**Iberis arbuscula* Runemark  
  *Iberis procumbens* Lange  
  subsp. *microcarpa* Franco & Pinto da Silva
- \**Ionopsidium acaule* (Desf.) Reichenb.  
  *Ionopsidium savianum* (Caruel) Ball ex Arcang.  
  *Sisymbrium cavanillesianum* Valdes & Castroviejo  
  *Sisymbrium supinum* L.

#### CYPERACEAE

- \**Carex panormitana* Guss.  
  *Eleocharis carniolica* Koch

## DIOSCOREACEAE

\**Borderea chouardii* (Gausson) Heslot

## DROSERACEAE

*Aldrovanda vesiculosa* L.

## EUPHORBIACEAE

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

## GENTIANACEAE

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

## GERANIACEAE

\**Erodium astragaloides* Boiss. & Reuter  
*Erodium paularense* Fernandez-Gonzalez & Izco  
\**Erodium rupicola* Boiss.

## GRAMINEAE

*Avenula hackelii* (Henriq.) Holub  
*Bromus grossus* Desf. ex DC.  
*Coleanthus subtilis* (Tratt.) Seidl  
*Festuca brigantina* (Markgr.-Dannenb.) Markgr.-Dannenb.  
*Festuca duriotagana* Franco & R. Afonso  
*Festuca elegans* Boiss.  
*Festuca henriquesii* Hack.  
*Festuca sumilusitanica* Franco & R. Afonso  
*Gaudinia hispanica* Stace & Tutin  
*Holcus setigulumis* Boiss. & Reuter  
    subsp. *duriensis* Pinto da Silva  
*Micropyropsis tuberosa* Romero — Zarco & Cabezudo  
*Pseudarrhenatherum pallens* (Link) J. Holub  
*Puccinellia pungens* (Pau) Paunero  
\**Stipa austroitalica* Martinovsky  
\**Stipa bavarica* Martinovsky & H. Scholz  
\**Stipa veneta* Moraldo

## GROSSULARIACEAE

\**Ribes sardum* Martelli

## HYPERICACEAE

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

## JUNCACEAE

*Juncus valvatus* Link

## LABIATAE

*Dracocephalum austriacum* L.  
\**Micromeria taygetea* P. H. Davis  
*Nepeta dirphyia* (Boiss.) Heldr. ex Halacsy  
\**Nepeta sphaciotica* P. H. Davis  
*Origanum dictamnus* L.  
*Sideritis incana*  
    subsp. *glauca* (Cav.) Malagarriga  
*Sideritis javalambrensis* Pau  
*Sideritis serrata* Cav. ex Lag.  
*Teucrium lepicephalum* Pau  
*Teucrium turredanum* Losa & Rivas Goday  
\**Thymus camphoratus* Hoffmanns. & Link  
*Thymus carnosus* Boiss.  
\**Thymus cephalotos* L.

## LEGUMINOSAE

*Anthyllis hystrix* Cardona, Contandr. & E. Sierra  
\**Astragalus algarbiensis* Coss. ex Bunge  
\**Astragalus aquilanus* Anzalone  
*Astragalus centralpinus* Braun-Blanquet



- \*Astragalus maritimus Moris
- Astragalus tremolsianus Pau
- \*Astragalus verrucosus Moris
- \*Cytisus aeolicus Guss. ex Lindl.
- Genista dorycnifolia Font Quer
- Genista holopetala (Fleischm. ex Koch) Baldacci
- Melilotus segetalis (Brot.) Ser.
  - subsp. fallax Franco
- \*Ononis hackelii Lange
- Trifolium saxatile All.
- \*Vicia bifoliolata J. D. Rodriguez

## LENTIBULARIACEAE

- Pinguicula nevadensis (Lindb.) Casper

## LILIACEAE

- Allium grosii Font Quer
- \*Androcymbium rechingeri Greuter
- \*Asphodelus bento-rainhae P. Silva
- Hyacinthoides vicentina (Hoffmanns. & Link) Rothm.
- \*Muscari gussonei (Parl.) Tod.

## LINACEAE

- \*Linum muelleri Moris

## LYTHRACEAE

- \*Lythrum flexuosum Lag.

## MALVACEAE

- Kosteletzkya pentacarpos (L.) Ledeb.

## NAJADACEAE

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

## ORCHIDACEAE

- \*Cephalanthera cucullata Boiss. & Heldr.
- Cypripedium calceolus L.
- Liparis loeselii (L.) Rich.
- \*Ophrys lunulata Parl.

## PAEONIACEAE

- Paeonia cambessedesii (Willk.) Willk.
- Paeonia parnassica Tzanoudakis
- Paeonia clusii F. C. Stern
  - subsp. rhodia (Stearn) Tzanoudakis

## PALMAE

- Phoenix theophrasti Greuter

## PLANTAGINACEAE

- Plantago algarbiensis Samp.
- Plantago almogravensis Franco

## PLUMBAGINACEAE

- Armeria berlengensis Daveau
- \*Armeria helodes Martini & Pold
- Armeria neglecta Girard
- Armeria pseudarmeria (Murray) Mansfeld
- \*Armeria rouyana Daveau
- Armeria soleirolii (Duby) Godron
- Armeria velutina Welv. ex Boiss. & Reuter
- Limonium dodartii (Girard) O. Kuntze
  - subsp. lusitanicum (Daveau) Franco
- \*Limonium insulare (Beg. & Landi) Arrig. & Diana
- Limonium lanceolatum (Hoffmanns. & Link) Franco
- Limonium multiflorum Erben
- \*Limonium pseudolaetum Arrig. & Diana
- \*Limonium strictissimum (Salzmann) Arrig.

## POLYGONACEAE

- Polygonum praelongum Coode & Cullen
- Rumex rupestris Le Gall

## PRIMULACEAE

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

## RANUNCULACEAE

- \*Aconitum corsicum Gayer
- Adonis distorta Ten.
- Aquilegia bertolonii Schott
- Aquilegia kitaibelii Schott
- \*Aquilegia pyrenaica D. C.  
subsp. cazorlensis (Heywood) Galiano
- \*Consolida samia P. H. Davis
- Pulsatilla patens (L.) Miller
- \*Ranunculus weyleri Mares

## RESEDACEAE

- \*Reseda decursiva Forssk.

## ROSACEAE

- Potentilla delphinensis Gren. & Godron

## RUBIACEAE

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

## SALICACEAE

- Salix salvifolia Brot.  
subsp. australis Franco

## SANTALACEAE

- Thesium ebracteatum Hayne

## SAXIFRAGACEAE

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

## SCROPHULARIACEAE

- Antirrhinum charidemi Lange
- Chaenorrhinum serpyllifolium (Lange) Lange  
subsp. lusitanicum R. Fernandes
- \*Euphrasia genargentea (Feoli) Diana
- Euphrasia marchesettii Wettst. ex Marches.
- Linaria algarviana Chav.
- Linaria coutinhoi Valdés
- \*Linaria ficelhoana Rouy
- Linaria flava (Poiret) Desf.
- \*Linaria hellenica Turrill
- \*Linaria ricardoi Cout.
- \*Linaria tursica B. Valdes & Cabezudo
- Linaria tonzigii Lona
- Odontites granatensis Boiss.
- Verbascum litigiosum Samp.
- Veronica micrantha Hoffmanns. & Link
- \*Veronica oetaea L.-A. Gustavson

## SELAGINACEAE

- \*Globularia stygia Orph. ex Boiss.

## SOLANACEAE

- \*Atropa baetica Willk.

## THYMELAEACEAE

- Daphne petraea Leybold
- \*Daphne rodriguezii Texidor

## ULMACEAE

*Zelkova abelicea* (Lam.) Boiss.

## UMBELLIFERAE

- \**Angelica heterocarpa* Lloyd
- Angelica palustris* (Besser) Hoffm.
- \**Apium bermejoi* Llorens
- Apium repens* (Jacq.) Lag.
- Athamanta cortiana* Ferrarini
- \**Bupleurum capillare* Boiss. & Heldr.
- \**Bupleurum kakiskalae* Greuter
- Eryngium alpinum* L.
- \**Eryngium viviparum* Gay
- \**Laserpitium longiradium* Boiss.
- \**Naufraga balearica* Constans & Cannon
- \**Oenanthe coniioides* Lange
- Petagnia saniculifolia* Guss.
- Rouya polygama* (Desf.) Coincy
- \**Seseli intricatum* Boiss.
- Thorella verticillatundata* (Thore) Brig.

## VALERIANACEAE

*Centranthus trinervis* (Viv.) Beguinot

## VIOLACEAE

- \**Viola hispida* Lam.
- Viola jaubertiana* Mares & Vigineix

## Lower plants

## BRYOPHYTA

- Bruchia vogesiaca* Schwaegr. (o)
- \**Bryoerythrophyllum machadoanum* (Sergio) M. Hill (o)
- Buxbaumia viridis* (Moug. ex Lam. & DC.) Brid. ex Moug. & Nestl. (o)
- Dichelyma capillaceum* (With.) Myr. (o)
- Dicranum viride* (Sull. & Lesq.) Lindb. (o)
- Distichophyllum carinatum* Dix. & Nich. (o)
- Drepanocladus vernicosus* (Mitt.) Warnst. (o)
- Jungermannia handelii* (Schiffn.) Amak. (o)
- Mannia triandra* (Scop.) Grolle (o)
- \**Marsupella profunda* Lindb. (o)
- Meesia longiseta* Hedw. (o)
- Nothothylas orbicularis* (Schwein.) Sull. (o)
- Orthotrichum rogeri* Brid. (o)
- Petalophyllum ralfsii* Nees & Goot. ex Lehm. (o)
- Riccia breidleri* Jur. ex Steph. (o)
- Riella helicophylla* (Mont.) Hook. (o)
- Scapania massolongi* (K. Muell.) K. Muell. (o)
- Sphagnum pylaisii* Brid. (o)
- Tayloria rudolphiana* (Gasrov) B. & G. (o)

## SPECIES FOR MACARONESIA

## PTERIDOPHYTA

## HYMENOPHYLLACEAE

*Hymenophyllum maderensis* Gibby & Lovis

## DRYOPTERIDACEAE

- \**Polystichum drepanum* (Sw.) C. Presl.

## ISOETACEAE

*Isoetes azorica* Durieu & Paiva

## MARSILIACEAE

- \**Marsilea azorica* Launert & Paiva

## ANGIOSPERMAE

## ASCLEPIADACEAE

- Caralluma burchardii* N. E. Brown
- \**Ceropegia chrysantha* Svent.

## BORAGINACEAE

- Echium candicans* L. fil.
- \**Echium gentianoides* Webb & Coincy
- Myosotis azorica* H. C. Watson
- Myosotis maritima* Hochst. in Seub.

## CAMPANULACEAE

- \**Azorina vidalii* (H. C. Watson) Feer
- Musschia aurea* (L. f.) DC.
- \**Musschia wollastonii* Lowe

## CAPRIFOLIACEAE

- \**Sambucus palmensis* Link

## CARYOPHYLLACEAE

- Spergularia azorica* (Kindb.) Lebel

## CELASTRACEAE

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

## CHENOPODIACEAE

- Beta patula* Ait.

## CISTACEAE

- Cistus chinamadensis* Banares & Romero
- \**Helianthemum bystropogophyllum* Svent.

## COMPOSITAE

- Andryala crithmifolia* Ait.
- \**Argyranthemum lidii* Humphries
- Argyranthemum thalassophyllum* (Svent.) Hump.
- Argyranthemum winterii* (Svent.) Humphries
- \**Atractylis arbuscula* Svent. & Michaelis
- Atractylis preauxiana* Schultz.
- Calendula maderensis* DC.
- Cheirolophus duranii* (Burchard) Holub
- Cheirolophus ghomerytus* (Svent.) Holub
- Cheirolophus junonianus* (Svent.) Holub
- Cheirolophus massonianus* (Lowe) Hansen
- Cirsium latifolium* Lowe
- Helichrysum gossypinum* Webb
- Helichrysum oligocephala* (Svent. & Bzaww.)
- \**Lactuca watsoniana* Trel.
- \**Onopordum nogalesii* Svent.
- \**Onopordum carduelinum* Bolle
- \**Pericallis hadrosoma* Svent.
- Phagnalon benettii* Lowe
- Stemmacantha cynaroides* (Chr. Son. in Buch) Ditt
- Sventenja bupleuroides* Font Quer
- \**Tanacetum ptarmiciflorum* Webb & Berth

## CONVOLVULACEAE

- \**Convolvulus caput-medusae* Lowe
- \**Convolvulus lopez-socasii* Svent.
- \**Convolvulus massonii* A. Dietr.

## CRASSULACEAE

- Aeonium gomeraense* Praeger
- Aeonium saundersii* Bolle
- Aichryson dumosum* (Lowe) Praeg.
- Monanthes wildpretii* Banares & Scholz
- Sedum brissemoretii* Raymond-Hamet

## CRUCIFERAE

- \**Crambe arborea* Webb ex Christ
- Crambe laevigata* DC. ex Christ
- \**Crambe sventenii* R. Petters ex Bramwell & Sund.
- \**Parolinia schizogynoides* Svent.
- Sinapidendron rupestre* (Ait.) Lowe

## CYPERACEAE

- Carex malato-belizii* Raymond

## DIPSACACEAE

- Scabiosa nitens* Roemer & J. A. Schultes

## ERICACEAE

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

## EUPHORBIACEAE

- \**Euphorbia handiensis* Burchard
- Euphorbia lambii* Svent.
- Euphorbia stygiana* H. C. Watson

## GERANIACEAE

- \**Geranium maderense* P. F. Yeo

## GRAMINEAE

- Deschampsia maderensis* (Haeck. & Born.)
- Phalaris maderensis* (Menezes) Menezes

## LABIATAE

- \**Sideritis cystosiphon* Svent.
- \**Sideritis discolor* (Webb ex de Noe) Bolle
- Sideritis infernalis* Bolle
- Sideritis marmorea* Bolle
- Teucrium abutiloides* L'Hér
- Teucrium betonicum* L'Hér

## LEGUMINOSAE

- \**Anagyris latifolia* Brouss. ex Willd.
- Anthyllis lemmaniana* Lowe
- \**Dorycnium spectabile* Webb & Berthel
- \**Lotus azoricus* P. W. Ball
- Lotus callis-viridis* D. Bramwell & D. H. Davis
- \**Lotus kunkelii* (E. Chueca) D. Bramwell & al.
- \**Teline rosmarinifolia* Webb & Berthel.
- \**Teline salsoloides* Arco & Acebes.
- Vicia dennesiana* H. C. Watson

## LILIACEAE

- \**Androcymbium psammophilum* Svent.
- Scilla maderensis* Menezes
- Semele maderensis* Costa

## LORANTHACEAE

- Arceuthobium azoricum* Wiens & Hawksw

## MYRICACEAE

- \**Myrica rivis-martinezii* Santos.

## OLEACEAE

- Jasminum azoricum* L.
- Picconia azorica* (Tutin) Knobl.

## ORCHIDACEAE

- Goodyera macrophylla* Lowe

## PITTOSPORACEAE

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

**PLANTAGINACEAE**

*Plantago malato-belizii* Lawalree

**PLUMBAGINACEAE**

\**Limonium arborescens* (Brouss.) Kuntze

*Limonium dendroides* Svent.

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

\**Limonium sventenii* Santos & Fernandez Galvan

**POLYGONACEAE**

*Rumex azoricus* Rech. fil.

**RHAMNACEAE**

*Frangula azorica* Tutin

**ROSACEAE**

\**Bencomia brachystachya* Svent.

*Bencomia sphaerocarpa* Svent.

\**Chamaemeles coriacea* Lindl.

*Dendriopterium pulidoi* Svent.

*Marcetella maderensis* (Born.) Svent.

*Prunus lusitanica* L.

subsp. *azorica* (Mouillef.) Franco

*Sorbus maderensis* (Lowe) Docle

**SANTALACEAE**

*Kunkeliella subsucculenta* Kammer

**SCROPHULARIACEAE**

\**Euphrasia azorica* Wats

*Euphrasia grandiflora* Hochst. ex Seub.

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

*Isoplexis isabelliana* (Webb & Berthel.) Masferrer

*Odontites holliana* (Lowe) Benth.

*Sibthorpia peregrina* L.

**SELAGINACEAE**

\**Globularia ascanii* D. Bramwell & Kunkel

\**Globularia sarcophylla* Svent.

**SOLANACEAE**

\**Solanum lidii* Sunding

**UMBELLIFERAE**

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

*Bupleurum handiense* (Bolle) Kunkel

*Chaerophyllum azoricum* Trelease

*Ferula latipinna* Santos

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

*Monizia edulis* Lowe

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

*Sanicula azorica* Guthnick ex Seub.

**VIOLACEAE**

*Viola paradoxa* Lowe

**Lower plants****BRYOPHYTA**

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

\**Thamnobryum fernandesii* Sergio (o)

## ANNEX III

**CRITERIA FOR SELECTING SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE AND DESIGNATION AS SPECIAL AREAS OF CONSERVATION**

**STAGE 1: Assessment at national level of the relative importance of sites for each natural habitat type in Annex I and each species in Annex II (including priority natural habitat types and priority species)**

**A. Site assessment criteria for a given natural habitat type in Annex I**

- (a) Degree of representativity of the natural habitat type on the site.
- (b) Area of the site covered by the natural habitat type in relation to the total area covered by that natural habitat type within national territory.
- (c) Degree of conservation of the structure and functions of the natural habitat type concerned and restoration possibilities.
- (d) Global assessment of the value of the site for conservation of the natural habitat type concerned.

**B. Site assessment criteria for a given species in Annex II**

- (a) Size and density of the population of the species present on the site in relation to the populations present within national territory.
- (b) Degree of conservation of the features of the habitat which are important for the species concerned and restoration possibilities.
- (c) Degree of isolation of the population present on the site in relation to the natural range of the species.
- (d) Global assessment of the value of the site for conservation of the species concerned.

**C. On the basis of these criteria, Member States will classify the sites which they propose on the national list as sites eligible for identification as sites of Community importance according to their relative value for the conservation of each natural habitat type in Annex I or each species in Annex II.**

**D. That list will show the sites containing the priority natural habitat types and priority species selected by the Member States on the basis of the criteria in A and B above.**

**STAGE 2: Assessment of the Community importance of the sites included on the national lists**

1. All the sites identified by the Member States in Stage 1 which contain priority natural habitat types and/or species will be considered as sites of Community importance.
2. The assessment of the Community importance of other sites on Member States' lists, i.e. their contribution to maintaining or re-establishing, at a favourable conservation status, a natural habitat in Annex I or a species in Annex II and/or to the coherence of Natura 2000 will take account of the following criteria:
  - (a) relative value of the site at national level;
  - (b) geographical situation of the site in relation to migration routes of species in Annex II and whether it belongs to a continuous ecosystem situated on both sides of one or more internal Community frontiers;
  - (c) total area of the site;
  - (d) number of natural habitat types in Annex I and species in Annex II present on the site;
  - (e) global ecological value of the site for the biogeographical regions concerned and/or for the whole of the territory referred to in Article 2, as regards both the characteristic of unique aspect of its features and the way they are combined.

## ANNEX IV

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

The species listed in this Annex are indicated:

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

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

## (a) ANIMALS

## VERTEBRATES

## MAMMALS

## INSECTIVORA

*Erinaceidae*

Erinaceus algirus

*Soricidae*

Crocidura canariensis

*Talpidae*

Galemys pyrenaicus

## MICROCHIROPTERA

All species

## RODENTIA

*Gliridae*

All species except Glis glis and Eliomys quercinus

*Sciuridae*

Citellus citellus

Sciurus anomalus

*Castoridae*

Castor fiber

*Cricetidae*

Cricetus cricetus

*Microtidae*

Microtus cabreræ

Microtus oeconomus arenicola

*Zapodidae*

Sicista betulina

*Hystricidae*

Hystrix cristata

## CARNIVORA

*Canidae*

Canis lupus (Except Spanish populations north of the Duero and Greek populations north of the 39th parallel)

*Ursidae*

Ursus arctos

*Mustelidae*

Lutra lutra

Mustela lutreola



*Felidae*

Felis silvestris  
Lynx lynx  
Lynx pardina

*Phocidae*

Monachus monachus

## ARTIODACTYLA

*Cervidae*

Cervus elaphus corsicanus

*Bovidae*

Capra aegagrus (natural populations)  
Capra pyrenaica pyrenaica  
Ovis ammon musimon (natural populations — Corsica and Sardinia)  
Rupicapra rupicapra balcanica  
Rupicapra ornata

## CETACEA

All species

## REPTILES

## TESTUDINATA

*Testudinidae*

Testudo hermanni  
Testudo graeca  
Testudo marginata

*Cheloniidae*

Caretta caretta  
Chelonia mydas  
Lepidochelys kempii  
Eretmochelys imbricata

*Dermochelyidae*

Dermochelys coriacea

*Emydidae*

Emys orbicularis  
Mauremys caspica  
Mauremys leprosa

## SAURIA

*Lacertidae*

Algyroides fitzingeri  
Algyroides marchi  
Algyroides moreoticus  
Algyroides nigropunctatus  
Lacerta agilis  
Lacerta bedriagae  
Lacerta danfordi  
Lacerta dugesi  
Lacerta graeca  
Lacerta horvathi  
Lacerta monticola  
Lacerta schreiberi  
Lacerta trilineata  
Lacerta viridis  
Gallotia atlantica  
Gallotia galloti  
Gallotia galloti 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

*Gekkonidae*

Cyrtopodion kotschy  
Phyllodactylus europaeus  
Tarentola angustimentalis  
Tarentola boettgeri  
Tarentola delalandii  
Tarentola gomerensis

*Agamidae*

Stellio stellio

*Chamaeleontidae*

Chamaeleo chamaeleon

*Anguidae*

Ophisaurus apodus

## OPHIDIA

*Colubridae*

Coluber caspius  
Coluber hippocrepis  
Coluber jugularis  
Coluber laurenti  
Coluber najadum  
Coluber nummifer  
Coluber viridiflavus  
Coronella austriaca  
Eirenis modesta  
Elaphe longissima  
Elaphe quatuorlineata  
Elaphe situla  
Natrix natrix cetti  
Natrix natrix corsa  
Natrix tessellata  
Telescopus falax

*Viperidae*

Vipera ammodytes  
Vipera schweizeri  
Vipera seoanni (except Spanish populations)  
Vipera ursinii  
Vipera xanthina

*Boidae*

Eryx jaculus

## AMPHIBIANS

## CAUDATA

*Salamandridae*

Chioglossa lusitanica  
Euproctus asper  
Euproctus montanus

Euproctus platycephalus  
Salamandra atra  
Salamandra aurorae  
Salamandra lanzai  
Salamandra luschani  
Salamandrina terdigitata  
Triturus carnifex  
Triturus cristatus  
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 italica  
Rana latastei  
Rana lessonae

*Pelobatidae*

Pelobates cultripipes  
Pelobates fuscus  
Pelobates syriacus

*Bufonidae*

Bufo calamita  
Bufo viridis

*Hylidae*

Hyla arborea  
Hyla meridionalis  
Hyla sarda

**FISH**

**ACIPENSERIFORMES**

*Acipenseridae*

Acipenser naccarii  
Acipenser sturio

**ATHERINIFORMES**

*Cyprinodontidae*

Valencia hispanica

## CYPRINIFORMES

*Cyprinidae*

Anaecypris hispanica

## PERCIFORMES

*Percidae*

Zingel asper

## SALMONIFORMES

*Coregonidae*

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

## INVERTEBRATES

## ARTHROPODS

## INSECTA

*Coleoptera*

Buprestis splendens  
Carabus olympiae  
Cerambyx cerdo  
Cucujus cinnaberinus  
Dytiscus latissimus  
Graphoderus bilineatus  
Osmoderma eremita  
Rosalia alpina

*Lepidoptera*

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

*Mantodea*

Apteromantis aptera

*Odonata*

Aeshna viridis  
Cordulegaster trinacriae  
Gomphus graslinii  
Leucorrhina albifrons  
Leucorrhina caudalis  
Leucorrhina pectoralis  
Lindenia tetraphylla  
Macromia splendens  
Ophiogomphus cecilia  
Oxygastra curtisii  
Stylurus flavipes  
Sympecma braueri

*Orthoptera*

Baetica ustulata  
Saga pedo

## ARACHNIDA

*Araneae*

Macrothele calpeiana

## MOLLUSCS

## GASTROPODA

*Prosobranchia*

Patella feruginea

*Stylommatophora*

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

## BIVALVIA

*Anisomyaria*

Lithophaga lithophaga  
Pinna nobilis

*Unionoida*

Margaritifera auricularia  
Unio crassus

## ECHINODERMATA

*Echinoidea*

Centrostephanus longispinus

(b) **PLANTS**

Annex IV (b) contains all the plant species listed in Annex II (b) <sup>(1)</sup> plus those mentioned below

## PTERIDOPHYTA

## ASPLENIACEAE

Asplenium hemionitis L.

## ANGIOSPERMAE

## AGAVACEAE

Dracaena draco (L.) L.

## AMARYLLIDACEAE

Narcissus longispithus Pugsley  
Narcissus triandrus L.

<sup>(1)</sup> Except bryophytes in Annex II (b).

**BERBERIDACEAE**

*Berberis maderensis* Lowe

**CAMPANULACEAE**

*Campanula morettiana* Reichenb.  
*Physoplexis comosa* (L.) Schur.

**CARYOPHYLLACEAE**

*Moehringia fontqueri* Pau

**COMPOSITAE**

*Argyranthemum pinnatifidum* (L.f.) Lowe  
subsp. *succulentum* (Lowe) C. J. Humphries  
*Helichrysum sibthorpii* Rouy  
*Picris willkommii* (Schultz Bip.) Nyman  
*Santolina elegans* Boiss. ex DC.  
*Senecio caespitosus* Brot.  
*Senecio lagascanus* DC.  
subsp. *lusitanicus* (P. Cout.) Pinto da Silva  
*Wagenitzia lancifolia* (Sieber ex Sprengel) Dostal

**CRUCIFERAE**

*Murbeckiella sousae* Rothm.

**EUPHORBIACEAE**

*Euphorbia nevadensis* Boiss. & Reuter

**GESNERIACEAE**

*Jankaea heldreichii* (Boiss.) Boiss.  
*Ramonda serbica* Pancic

**IRIDACEAE**

*Crocus etruscus* Parl.  
*Iris boissieri* Henriq.  
*Iris marisca* Ricci & Colasante

**LABIATAE**

*Rosmarinus tomentosus* Huber-Morath & Maire  
*Teucrium charidemi* Sandwith  
*Thymus capitellatus* Hoffmanns. & Link  
*Thymus villosus* L.  
subsp. *villosus* L.

**LILIACEAE**

*Androcymbium europeum* (Lange) K. Richter  
*Bellevalia hackelli* Freyn  
*Colchicum corsicum* Baker  
*Colchicum cousturieri* Greuter  
*Fritillaria conica* Rix  
*Fritillaria drenovskii* Dogen & Stoy.  
*Fritillaria gussichiae* (Degen & Doerfler) Rix  
*Fritillaria obliqua* Ker-Gawl.  
*Fritillaria rhodocanakis* Orph. ex Baker  
*Ornithogalum reverchonii* Degen & Herv.-Bass.  
*Scilla beirana* Samp.  
*Scilla odorata* Link

**ORCHIDACEAE**

*Ophrys argolica* Fleischm.  
*Orchis scopulorum* Simsmerh.  
*Spiranthes aestivalis* (Poirot) L. C. M. Richard

**PRIMULACEAE**

*Androsace cylindrica* DC.  
*Primula glaucescens* Moretti  
*Primula spectabilis* Tratt.

**RANUNCULACEAE**

*Aquilegia alpina* L.

## SAPOTACEAE

*Sideroxylon marmulano* Banks ex Lowe

## SAXIFRAGACEAE

*Saxifraga cintrana* Kuzinsky ex Willk.

*Saxifraga portosanctana* Boiss.

*Saxifraga presolanensis* Engl.

*Saxifraga valdensis* DC.

*Saxifraga vayredana* Luizet

## SCROPHULARIACEAE

*Antirrhinum lopesianum* Rothm.

*Lindernia procumbens* (Krocker) Philcox

## SOLANACEAE

*Mandragora officinarum* L.

## THYMELAEACEAE

*Thymelaea broterana* P. Cout.

## UMBELLIFERAE

*Bunium brevifolium* Lowe

## VIOLACEAE

*Viola athois* W. Becker

*Viola cazorlensis* Gandoger

*Viola delphinantha* Boiss.

## ANNEX V

## ANIMAL AND PLANT SPECIES OF COMMUNITY INTEREST WHOSE TAKING IN THE WILD AND EXPLOITATION MAY BE SUBJECT TO MANAGEMENT MEASURES

The species listed in this Annex are indicated:

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

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

(a) *ANIMALS**VERTEBRATES**MAMMALS**CARNIVORA**Canidae*

- Canis aureus*
- Canis lupus* (Spanish populations north of the Duera and Greek populations north of the 39th parallel)

*Mustelidae*

- Martes martes*
- Mustela putorius*

*Phocidae*

- All species not mentioned in Annex IV

*Viverridae*

- Genetta genetta*
- Herpestes ichneumon*

*DUPLICIDENTATA**Leporidae*

- Lepus timidus*

*ARTIODACTYLA**Bovidae*

- Capra ibex*
- Capra pyrenaica* (except *Capra pyrenaica pyrenaica*)
- Rupicapra rupicapra* (except *Rupicapra rupicapra balcanica* and *rupicapra ornata*)

*AMPHIBIANS**ANURA**Ranidae*

- Rana esculenta*
- Rana perezi*
- Rana ridibunda*
- Rana temporaria*

*FISH**PETROMYZONIFORMES**Petromyzonidae*

- Lampetra fluviatilis*
- Lethenteron zanandrai*



**ACIPENSERIFORMES***Acipenseridae*

All species not mentioned in Annex IV

**SALMONIFORMES***Salmonidae*

*Thymallus thymallus*

*Coregonus* spp. (except *Coregonus oxyrhynchus* — anadromous populations in certain sectors of the North Sea)

*Hucho hucho*

*Salmo salar* (only in fresh water)

*Cyprinidae*

*Barbus* spp.

**PERCIFORMES***Percidae*

*Gymnocephalus schraetzer*

*Zingel zingel*

**CLUPEIFORMES***Clupeidae*

*Alosa* spp.

**SILURIFORMES***Siluridae*

*Silurus aristotelis*

**INVERTEBRATES****COELENTERATA****CNIDARIA***Corallium rubrum***MOLLUSCA****GASTROPODA — STYLOMMATOPHORA***Helicidae*

*Helix pomatia*

**BIVALVIA — UNIONOIDA***Margaritiferidae*

*Margaritifera margaritifera*

*Unionidae*

*Microcondylaea compressa*

*Unio elongatulus*

**ANNELIDA****HIRUDINOIDEA — ARHYNCHOBDELLAE***Hirudinidae*

*Hirudo medicinalis*

**ARTHROPODA****CRUSTACEA — DECAPODA***Astacidae*

*Astacus astacus*

*Austropotamobius pallipes*

*Austropotamobius torrentium*

*Scyllaridae*

*Scyllarides latus*

**INSECTA — LEPIDOPTERA***Saturniidae*

*Graellsia isabellae*

(b) **PLANTS****ALGAE****RHODOPHYTA****CORALLINACEAE**

- Lithothamnium coralloides Crouan frat.
- Phymatholithon calcareum (Poll.) Adey & McKibbin

**LICHENES****CLADONIACEAE**

- Cladonia L. subgenus Cladina (Nyl.) Vain.

**BRYOPHYTA****MUSCI****LEUCOBRYACEAE**

- Leucobryum glaucum (Hedw.) Ångstr.

**SPHAGNACEAE**

- Sphagnum L. spp. (except Sphagnum pylasii Brid.)

**PTERIDOPHYTA**

- Lycopodium spp.

**ANGIOSPERMAE****AMARYLLIDACEAE**

- Galanthus nivalis L.
- Narcissus bulbocodium L.
- Narcissus juncifolius Lagasca

**COMPOSITAE**

- Arnica montana L.
- Artemisia eriantha Ten
- Artemisia genipi Weber
- Doronicum plantagineum L.  
subsp. tournefortii (Rouy) P. Cout.

**CRUCIFERAE**

- Alyssum pintadasilvae Dudley.
- Malcolmia lacera (L.) DC.  
subsp. gracilima (Samp.) Franco
- Murbeckiella pinnatifida (Lam.) Rothm.  
subsp. herminii (Rivas-Martinez) Greuter & Burdet

**GENTIANACEAE**

- Gentiana lutea L.

**IRIDACEAE**

- Iris lusitanica Ker-Gawler

**LABIATAE**

- Teucrium salviastrum Schreber  
subsp. salviastrum Schreber

**LEGUMINOSAE**

- Anthyllis lusitanica Cullen & Pinto da Silva
- Dorycnium pentaphyllum Scop.  
subsp. transmontana Franco
- Ulex densus Welw. ex Webb.

**LILIACEAE**

- Lilium rubrum Lmk
- Ruscus aculeatus L.

**PLUMBAGINACEAE**

- Armeria sampaio (Bernis) Nieto Feliner

## ROSACEAE

*Rubus genevieri* Boreau  
subsp. *herminii* (Samp.) P. Cout.

## SCROPHULARIACEAE

*Anarrhinum longipedicelatum* R. Fernandes  
*Euphrasia mendonçae* Samp.  
*Scrophularia grandiflora* DC.  
subsp. *grandiflora* DC.  
*Scrophularia berminii* Hoffmanns & Link  
*Scrophularia sublyrata* Brot.

## COMPOSITAE

*Leuzea rhaponticoides* Graells

## ANNEX VI

**PROHIBITED METHODS AND MEANS OF CAPTURE AND KILLING AND MODES OF TRANSPORT****(a) Non-selective means****MAMMALS**

- Blind or mutilated animals used as live decoys
- Tape recorders
- Electrical and electronic devices capable of killing or stunning
- Artificial light sources
- Mirrors and other dazzling devices
- Devices for illuminating targets
- Sighting devices for night shooting comprising an electronic image magnifier or image converter
- Explosives
- Nets which are non-selective according to their principle or their conditions of use
- Traps which are non-selective according to their principle or their conditions of use
- Crossbows
- Poisons and poisoned or anaesthetic bait
- Gassing or smoking out
- Semi-automatic or automatic weapons with a magazine capable of holding more than two rounds of ammunition

**FISH**

- Poison
- Explosives

**(b) Modes of transport**

- Aircraft
  - Moving motor vehicles
-