

**The Alpine biogeographical region
(Alps, Carpathians, Pyrenees, Scandinavian Mountains)**

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**Adaptation of the Habitats and Birds Directives for the expansion of the
European Union**

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Abstract

The Birds Directive & the Habitats Directive together are the major EU policy instruments for nature conservation and they both demand the creation of a network of sites which together form the Natura 2000 network. Site selection is based on lists of species and habitats of conservation interest given in annexes to both directives. These annexes reflect the biodiversity of the EU at the time the directive was adopted and with each enlargement of the EU they have been examined and modified to take into account the biodiversity of the new member states.

With the recent extension of the EU from 15 to 25 member states a large part of the Carpathians became part of the EU and the inclusion of Romania is expected in the near future. The Candidate Countries (including Romania) were asked to propose changes to the annexes, which were then discussed at various meetings with scientific advice from the ETC-NPB following criteria developed from definitions given in the directives.

As the alpine habitats already listed in Annex I of the Habitats Directive are broadly defined relatively few new habitats were added for the Carpathians although some descriptions were modified. Rather more species from the Carpathians were added.

Introduction

Council directive of 2 April 1979 on the conservation of wild birds (79/409/EEC), usually known as the Birds Directive and Council Directive (92/43/EEC) of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora more commonly called the Habitats Directive or the Fauna, Flora & Habitats Directive are the major EU policy instruments for nature conservation. Amongst the measures for conserving biodiversity both directives oblige Member States to designate sites, following criteria and lists given in the directives, which will form the Natura 2000 network. At the time of writing (July 2004) for the EU15 there are some 3 600 Special Protection Areas (SPA) designated covering approximately 28 million ha and some 16 000 proposed Sites of Community Interest (pSCI) covering approximately 46 million ha. Many sites are covered by both designations. Sites from the 10 countries who joined the EU in May 2004 have yet to be integrated into the database of proposed and designated sites.

The Birds Directive requires sites for rare and threatened species listed in its Annex I but also for migratory birds while the Habitats Directive requires sites for Annex I habitats and Annex II species, more details are given below. Other Annexes in both

directives concern species needing strict protection throughout their natural range, site selection criteria, species which can be hunted or exploited and hunting methods which are banned.

The lists of species and habitats requiring protection in the two directives as originally adopted were based on the species and habitats present and their conservation status in the European Union (or its predecessors) at the time of adoption. With each successive enlargement (see table 1) the directives have been examined and where needed adapted, with either new species or habitats added or perhaps geographical exemptions for species which are of conservation interest in the former EU but which may be pest species in a country about to join.

Table 1

EU enlargements since the adoption of the Birds Directive in 1979

Year	Countries joining
1981	Greece
1986	Spain, Portugal
1995	Austria, Finland, Sweden
2004	Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia, Slovakia

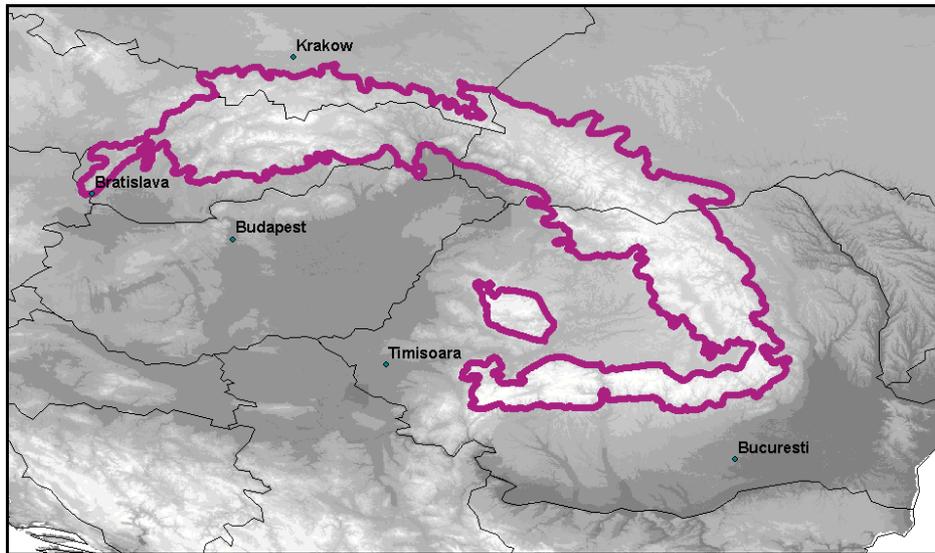
With each expansion the annexes of the Birds Directive have changed and since 1992 those of the Habitats Directive as well. For instance the 1995 expansion resulted in the addition of a Boreal biogeographical region and 28 new habitats to Annex I and 68 species to Annex I of the Habitats Directive.

During negotiations to join the EU Candidate Countries were asked to propose changes to the annexes of both directives using a standard form, indicating reasons why the habitat or species should be added or for geographical exemptions why it should be given. Often supporting information was also provided which helped assess the proposals. In the past proposals have been assessed by the Habitats & Ornis committees after examination by their Scientific Working Groups (SWG). For the recent expansion (May 2004) a series of three workshops (16 & 17 October 2000, 19 & 20 July 2001, 17 April 2002) were held in Brussels attended by the Candidate Countries, DG Environment and the ETC-NPB as well as discussions at the regular meetings of the SWGs and the two committees. Prior to these meetings the ETC-NPB evaluated the proposals against agreed criteria (see below). Over 1000 proposals were evaluated and the process is still underway for Bulgaria and Romania.

In this paper the Carpathians have been interpreted to be the alpine biogeographical sub-region region as shown by the Biogeographical regions map used for Emerald and Natura 2000 (available at <http://dataservice.eea.eu.int/atlas/viewdata/viewpub.asp?id=155>) and thus includes parts of Poland & Slovakia within the EU, together with parts of Romania (a Candidate for EU membership) and the Ukraine as shown on Figure 1.

Fig 1

Carpathian section of the Alpine Biogeographical Region.



Birds Directive

For the 2004 enlargement 32 species or subspecies were proposed as additions to Annex I and 13 were accepted. Of these species only two are found in the Carpathians, Saker Falcon (*Falco cherrug*) and Red-footed Falcon (*Falco vespertinus*) both proposed by BU, CZ, HU, RO & SK. Both PL & SK noted species on Annex II/2 (species where hunting is permitted).

Special Protection Areas are also required for migratory species but there do not appear to be any additional migratory species as a result of the Carpathians now being partly within the EU.

Habitats Directive

To extend the scope of the Habitats Directive from the EU15 to the EU25 required the addition of an extra biogeographical zone (the Pannonian) plus amendments to Annexes I, II, IV and V. Changes to Annexes IV & V do not concern the Natura 2000 network and will not be discussed here. The map of Biogeographical regions also needed to be extended and the Interpretation Manual of EU habitats revised.

Map of Biogeographical Regions

The map of biogeographical regions is based on maps of Potential Natural Vegetation, with each mapping unit assigned to a biogeographical region or an azonal group followed by a smoothing out process. The original map covered the EU 12 but has since been extended to all of Europe for the Council of Europe (CoE) 'Emerald' network. There is an agreement between the EU & the CoE to ensure the same map is used for both networks. Further details are given in Roekarts (2002).

Adapting the Annexes

Proposals were received from all 12 Candidate Countries, with a first tranche of proposals in 2000. After evaluations by the ETC-NPB these were discussed at the 3 Brussels workshops between Candidate Countries and DG Environment, with

scientific support from the ETC-NPB. Existing Member States were able to make comments at meetings of the Habitats Committee and its Scientific Working Group which discussed possible amendments regularly. The Commission asked Candidate Countries not to propose species or habitats that would change the legal requirements of the existing Member States to a significant extent although in some cases such additions were accepted when there was a strong scientific case.

Habitats (Annex I)

Annex I lists 225 habitats considered to be of Community Interest and for which sites should be included in the Natura 2000 network. The list is very heterogeneous, including some habitats which are 'landscape units' (e.g. estuaries) and others, which are only ever found as small areas of a few square metres often as part of a mosaic of other habitat types (e.g. petrifying springs). Article 1 of the Habitats Directive gives the following criteria for habitats of Community Interest: -

“(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 six following biogeographical regions: Alpine, Atlantic, Continental, Macaronesian Mediterranean and Pannonian.”

All proposals for new habitats received from the 12 Candidate Countries were assessed against these 3 criteria. Where similar proposals were received from two or more countries they were treated as a composite proposal.

In many cases the proposed habitat type was considered to be a variation of an existing habitat type (e.g. the Polish proposal for Carpathian beech & yew woods was considered to be a variant of the existing habitat type '9150 Medio-European limestone beech forests of the *Cephalanthero-Fagion*'), in other cases a proposed habitat was very close to an existing habitat and it was considered better to amend the description of the existing habitat than have two very closely related (possibly overlapping) habitats (see Box 1). This was partly a result of problems already encountered during the biogeographical seminars held to assess the national lists. In some cases a change of name would have been helpful but that was not an option as this would have required the approval of the Council of Ministers. For instance *Salix lapponum* scrub in the Tatra (proposed by Poland) is clearly similar to habitat "4080 Sub-Arctic *Salix* spp. scrub" although the Tatra is not sub-arctic.

Box 1

Example of the amendment of an existing habitat type, new text is underlined

6150 Siliceous alpine and boreal grasslands

PAL.CLASS.: 36.11, 36.32, 36.34

- 1)** Boreo-alpine formations of the higher summits of mountains in the Alps and Scandinavia with outliers elsewhere such as the Tatra, with *Juncus trifidus*, *Carex bigelowii*, mosses and lichens. Also included are associated snowbed communities.

For habitats accepted as additions to Annex I the ETC-NPB produced a draft entry for the Interpretation Manual following the format of the existing entries. These descriptions were based on the corresponding entry in the PHYSIS database¹, but modified if need be to take into account information given in the proposal. These drafts were circulated to the Candidate Countries and the Member States for comments and then revised. The new entries, together with revised descriptions for some 25 existing habitats were approved by the Habitats Committee on 14 March 2002. The revised Interpretation Manual (CEC, 2003) is available on the Internet.

Relatively few new habitats occurring in the Carpathians were added (see Table 2), largely because the existing alpine habitats were broadly defined and, sometimes with minor modification, already covered many of the habitats proposed as additions.

For the alpine zone of Poland and Slovakia there are some 65 Annex I habitat types present of which 5 are new (8%). For comparison, in Hungary some 17.5% of habitat types are new, largely due to the addition of a Pannonian region and associated habitats.

Table 2

New habitats present in the Carpathians, note that discussions with Romania are still open & additional habitats are possible. Distribution is taken from various literature sources & has still to be validated.

Code	P	Name	Proposed by	PL	SK	RO
40A0	*	Subcontinental peri-Pannonic scrub	HU		X	
6190		Rupicolous pannonic grasslands (<i>Stipo-Festucetalia pallentis</i>)	HU		X	
91K0		Illyrian <i>Fagus sylvatica</i> forests (<i>Aremonio-Fagion</i>)	HU, SI			?
91M0		Pannonian-Balkan turkey oak –sessile oak forests	HU			X ?
91P0		Holy Cross fir forest (<i>Abietetum polonicum</i>)	PL	X ?		
91Q0		Western Carpathian calcicolous <i>Pinus sylvestris</i> forests	PO, SK	X	X	X ?
91T0		Central European lichen scots pine forests	CZ	X		
91V0		Dacian beech forests (<i>Symphyto-Fagion</i>)	RO			X

¹ See www.kbinirsnb.be/cb/databases/cb_db_physis_eng.htm for more information

Species

Annex II lists species of community interest where site protection is considered necessary, most of these species are also listed on Annex IV as requiring protection from disturbance, killing, destruction of habitat, *etc.* although some are on Annex V where controlled exploitation is permitted. Article 1 defines species of Community interest as:-

- “(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.”

To help assess the large number of proposals for additions to Annex II received from the 12 Candidate Countries some additional guidelines were agreed. The following would be considered as positive arguments in favour of accepting a species

- Listing on Annexes I, II & III of the Berne Convention
- Listing in global, regional or national Red lists

It was also agreed that no new taxonomic groups would be added as, even if otherwise qualifying, there would not be a EU wide list for that group. Thus Slovak proposals for lichens were rejected as this group had not been previously included on either Annex II or IV. Where species were found only in a rare habitat it was considered preferable to add the habitat to Annex I if not already included. A few exceptions to this guideline were made for 'flagship species' (*e.g. Asplenium adnigrum*). In general species accepted were listed for both Annexes II & IV unless there were good scientific arguments to do otherwise. From experience of the problems encountered during biogeographical seminars species which were thought likely to cause taxonomic problems were not accepted.

As a consequence of the Article I definition species that were rare, often endangered, in a Candidate Country but widespread and maybe even common elsewhere in the EU were not accepted. For example the Polish proposal for *Sorex caecutiens* was refused as the species is widespread and not threatened in Scandinavia.

One hundred and sixty-five species were added to Annex II of which it is estimated some 50 occur in the Polish and Slovak Carpathians (see Tables 3 & 4), mostly plants and invertebrates. Romania has proposed many species of which it is likely that some 50 will be added but until discussions are complete it is not clear how many are Carpathian species. A full list of new species for all annexes can be found at

Table 3

Number of species on Annex II per group in the alpine zone of Poland & Slovakia, note that discussions with Romania are still ongoing & additional species are possible. Distribution is taken from various literature sources & has still to be validated.

Group	new	total	% new
Mammals	6	22	27,3
Reptiles	0	1	0,0
Amphibians	1	5	20,0
Fish	1	19	5,3
Invertebrates	17	45	37,8
Plants	24	44	54,5
Total	49	136	36,0

Table 4

New Annex II species present in the Carpathians, note that discussions with Romania are still open & there will be additional species. As distribution of Annex II species in the newly joined countries has yet to be validated some of the species below may not be present and some species not listed may be present

Mammals

Bison bonasus
Marmota marmota latirostris
Microtus tatricus
Mustela eversmannii
Rupicapra rupicapra tatrica
Sicista subtilis

Amphibians & Reptiles

Triturus montandoni

Fish

Gymnocephalus baloni

Invertebrates

Bolbelasmus unicornis
Carabus hampei
Carabus variolosus
Coenagrion ornatum
Colias myrmidone
Dioszeghyana schmidtii
Duvalius hungaricus
Erannis ankeraria
Leptidea morsei
Lycaena helle

Plants

Adenophora lilifolia
Asplenium adulterinum
Campanula bohemica
Campanula serrata
Cochlearia tatrae
Cyclamen fatrense
Daphne arbuscula
Dianthus lumnitzeri
Dianthus nitidus
Echium russicum
Erysimum pienenicum
Gentianella bohemica
Gladiolus palustris
Himantoglossum adriaticum
Himantoglossum caprinum
Iris aphylla ssp hungarica
Ochryaea tatrensis
Pulsatilla grandis
Pulsatilla slavica
Pulsatilla subslavica
Serratula lycopifolia

Nymphalis vaualbum
Phryganophilus ruficollis
Polyommatus eroides
Pseudogaurotina excellens
Rhysodes sulcatus
Sadleriana pannonica
Xylomoia strix

Tephroseris longifolia ssp. *moravica*
Thlaspi jankae
Tozzia carpathica

Work remaining

Although Romania has proposed species and habitats and has taken part in the same discussions as Slovakia and Poland it did not join the EU in May 2004 and discussions have not yet been finalised. It is probable that further habitats and species will be proposed and accepted. It is also possible that further proposals from Bulgaria may also include habitats and species found in the Carpathians although this is unlikely.

Acknowledgements

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References

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