

SOME GENERAL PRINCIPLES FOR BIOGEOGRAPHICAL SEMINARS
A discussion paper for the Scientific Working Group meeting, 16 September 2002

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INTRODUCTION

The first round of Biogeographical seminars has been completed and the second and final round has now started. It has become apparent to the ETC-NPB and others that there is a need to learn from our collective experience and to try to have a greater degree of conformity between the various regions and Member States. This document is intended to suggest a common understanding of a number of points based on discussions at previous seminars. It is partly based on contributions from Ronald Fricke² & Axel Ssymank³ and the ETC-NPB thank them for their assistance.

GENERAL

Standard Data Forms

All Annex I habitats & Annex II species regularly present on a site should be listed and all relevant datafields completed.

If a site is in 2 or more biogeographical regions indicate the proportion in each region in 4.1 e.g. Alpine 40%, Continental 60%.

a) Habitats

Following the adoption of the 1997 version of the Interpretation Manual habitat, subtypes (*i.e.* those with codes not ending in 0) should not be used in the database sent to the EC and there should only be one listing per habitat (*i.e.* no double entries).

There are 3 habitats which can be either priority or non-priority

- 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*)(*important orchid sites)
- 7130 Blanket bog (* active only)
- 9430 Subalpine and montane *Pinus uncinata* forests (* if on gypsum or limestone).

For these habitats section 4.1 should be used to indicate the proportion of priority/non priority present on a site (e.g. 10% priority, 90 % non priority)

There are situations where Annex I habitats can overlap (*e.g.* sand banks occurring within an estuary) but the total should not be >100 %. Give an accurate figure for the smaller habitats (*e.g.* 20% for the sandbank) and estimate the larger habitat as the remainder of the area (*e.g.* in this case the estuary would be 80%).

b) Species

Species which have been recorded occasionally but which are not regularly occurring (*e.g.* vagrants) should not be included. It is difficult to give a general rule on listing species for which only historical records exist, for many small, not well known species, even old records may still be valid (*e.g.* for bryophytes or small molluscs such as *Vertigo* spp.) unless recent survey shows the species is no longer present or the habitat has changed and is no longer suitable.

¹ This document does not necessarily reflect the views of the Commission services.

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As with habitats, double entries are not permitted, use 4.1 to give additional information if necessary, *e.g.* differing populations in winter & summer.

Sensitive data

For some species there is a need for confidentiality as protection against collecting which may be a significant threat and the Habitats Committee have recommended that in these instances data should not be included in the database. However the Habitats Directive and its site evaluation procedures make it obligatory to send the data to the Commission (and the ETC/NPB) for Community assessment and legal procedures. These data should be sent on a paper copy of the standard data form (according to 97/266/EC), clearly indicating on the form which data (species or habitats) are sensitive data and omitted from the electronic version. The site boundary should however in any case be given in GIS-electronic format.

The Reference List

There has been some confusion between the Reference List as a list of habitats & species present for which Member States must propose sites and as a more complete 'Checklist'. The ETC-NPB suggest that the former meaning should be adopted and species which have only been recorded as 'accidental', introduced or very occasional should not be included.

Marginal

This term has been used to justify accepting a small proportion of habitat area or population of a species as 'Sufficiently represented' within a Biogeographical region of a Member State when the habitat or species is well represented in an adjacent biogeographical region of the same Member State. The occurrence of a habitat &/or species outside its usual biogeographical region means that even a small area or populations should merit 'C' for Representivity; if the habitat or species is really 'non significant' in all sites where it occurs it should not be listed on the Reference List.

Offshore Habitats & Species

It is now accepted that the Habitats Directive also applies to territorial waters beyond 12 nautical miles and that sites should be proposed for the Annex I habitats and Annex II habitats which occur there. Few sites have been proposed in this region to date and scientific knowledge remains limited. To allow sites to be added after the adoption of the various Community lists a general reserve has been agreed for these habitats and species. Further information will be found in the report of the meeting held at Gatwick (17 & 18 June 2002).

HABITATS

The term "natural" in the Habitats Directive and in the EUR15 Interpretation Manual does not refer to the origin of the habitat type (primary versus secondary habitats), but refers to being in a (semi) natural state of development (including secondary habitats with a (semi) natural development, if not explicitly stated otherwise in the definition of the interpretation manual). The term "natural" applies in a broad sense, as all the secondary, anthropogenic habitats of extensive cultural landscapes with the development of natural or semi natural vegetation like hay meadows, many heaths, etc. are listed in Annex I as "natural habitat types".

For site selection of pSCI's for habitat types which are climax vegetation types there is a clear preference for primary natural habitats, but a representative site selection has to include secondary sites of nature conservation value in a (semi) natural state of development as well, if

1. the full geographical coverage of the habitat type cannot be ensured by proposing primary sites only and/or
2. a large percentage of all possible sites with the habitat type are of secondary origin and ensuring the necessary coherence of Natura 2000 will not be possible by proposing primary sites only

It will be important to consider the history of a habitat (primary or secondary) when assessing 'Conservation Status'.

There are certain habitats which appear to pose particular problems and where clarification is needed

1130 Estuaries

A meeting was held in Brussels on 30 November 2001 to discuss this habitat, in particular the choice of site boundaries. There was agreement that site boundaries should be drawn so as to include the entire hydrological unit. (See report to be discussed on 16/09/2002)

1210 Annual vegetation of drift lines: The Interpretation Manual states;-

"Formations of annuals or representatives of annual and perennials, occupying accumulations of drift material **and** gravel rich in nitrogenous organic matter (*Cakiletea maritima* p.)."

Sites proposed for this habitat may include *Cakiletea maritima* developed on gravel or mixed gravel and sandy substrates (these mixtures are often very dynamic and variable) but such vegetation on purely sandy beaches should be regarded as habitat 2110 Embryonic shifting dunes if appropriate.

1320 *Spartina* swards (*Spartinion maritima*): The habitat type does include *Spartina* stands of several *Spartina* species listed in the Interpretation Manual, including *Spartina maritima*, *S. anglica* and *S. x townsendii*. Site selection should however clearly focus on the indigenous European species such as *Spartina maritima*. A specific site selection for *Spartina x townsendii* as a hybrid species (*S. maritima* x *alterniflora*) with a N-American species and the polyploid *Spartina anglica* (originating from *S. x townsendii* in the 1890s in S-England) should not be obligatory.

Standing freshwater habitat types

3110 Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorarum*)

3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoeto-Nanojuncetea*

3140 Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp

3150 Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition*-type vegetation

3160 Natural dystrophic lakes and ponds

Following the definition of "natural" given above all these habitat types include both natural primary and secondary (e.g. ponds) permanent standing water bodies in a (semi)natural state.

6130 Calamarian grasslands of the *Violetalia calaminariae*

This habitat is defined by its floristics not just by the presence of metaliferous soils.

6230. Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas (and submountain areas in Continental Europe)

As agreed at the 1st Atlantic seminar (Kilkee, 1999) this habitat type includes *Nardus* grasslands of the lowlands (planar-submountainous). The interpretation manual clearly describes two subtypes within the definition;- 35.1 *Violo-Nardion* (*Nardo-Galion saxatilis*, *Violion caninae*), which is the lowland type, and 36.31 *Nardion* [*Eu-Nardion*, *Nardo-Agrostion tenuis*] the mountain type of *Nardus*-grasslands. Lowland spp-rich *Nardus* grasslands are much more threatened than the upland *Nardion*.

6410 *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)

This habitat types includes all *Molinion*-vegetation in a broad sense both on calcareous and on acidic or neutral substrates. The Interpretation Manual gives two subtypes 37.311 *Eu-molinion* (on calcareous to neutral substrates) and 37.311 *Junco-Molinion* or *Juncion acutiflori* (on acidic substrates). Interpretation problems have been arising from differing phytosociological concepts, one separating the subtype on acidic substrates as a distinct alliance (*Juncion actuiiflori*), other concepts including them into the *Molinion caeruleae*.

(Problems also arise from PHYSIS having an alliance as a subtype of an alliance)

SPECIES**Introductions & reintroductions**

Sites should not be proposed for **introduced** populations beyond the historical range of the species.

Reintroduced populations within the historical range can be proposed and where these have become self-sustaining should be proposed.

Site selection

Sites must be proposed to cover all essential parts of the annual or life cycle of a species⁴.

Fish

Every freshwater fish species is migratory to some extent. However the distance of migration varies between species.

The following types of migration can be distinguished for Annex I fish species:

- spawning migrations (example: the European river lamprey *Lampetra fluviatilis* migrates from its marine feeding sites into river mouths and then far upstream to spawn on gravel beds in the upper reaches)
- larval and juvenile migrations (example: larvae and juveniles of Twait shad *Alosa fallax* migrate downstream following their prey organisms)
- feeding migrations (example: young salmon *Salmo salar* migrate downstream towards the ocean to reach their feeding sites)
- wintering migrations (example: *Leuciscus souffia* migrates into rivers with deep sections in autumn and returns into shallower brooks in spring)
- drift-correction migrations (example: adults of the bullhead *Cottus gobio* are drifted downstream with floods; they later migrate back upstream to their former sites)

Resting on the migration route through larger rivers may last several days, weeks or months. For such resting, sites suitable for selection include the mouths of smaller side rivers, old side beds, and areas of shelter in shallow water behind islands in the river (if water quality and habitat structures are adequate). In some cases, even harbour basins may be suitable for site selection, depending on the species. Resting sites need a minimum extent of 2-3 km downstream for drift correction. Distances between resting sites should not exceed 10-20 km (depending on the needs of the different species).

Some species have short-range migrations (e.g. a few kilometres at the maximum in the bullhead *Cottus gobio*); others undertake very long range migrations (e.g. thousands of kilometres in the European Atlantic sturgeon *Acipenser sturio*).

⁴ (Art 1 k) « 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; »

Site selection is necessary for all essential parts of the life cycle including all areas where specimens remain for longer periods of time. No site selection is necessary for areas where fish pass through rapidly (from A to B in a few days)

Sites to be considered for selection are:

- Spawning sites
- Egg sites (if not identical with spawning sites; example: *Alosa fallax*)
- Larval sites
- Juvenile sites
- Feeding sites
- Wintering sites
- Resting sites (for long-distance adult upstream or juvenile downstream migrations)

Site selection must reflect the biology and the individual needs of each different species. The approach described above should be regarded as the minimum required under the Directive and Member States may wish to consider proposing complete river systems.

Bats

Bats often use different areas for maternity roosts, hibernation roosts and foraging sites should be proposed for all stages of the annual life cycle. In some cases it may be necessary to designate buildings or other man made structures as part of SCI as in some areas these are the only known roosts.

Roosting sites in buildings, etc are also protected under Article 12 and in many instances this may be more appropriate than including buildings in an SIC.

Phocoena phocoena

Site selection for this species was discussed at length at a meeting held in Brussels (14 December 2000), sites should be identified on the basis of

- The continuous or regular presence of the species (subject to seasonal variations)
- Good population density (in relation to neighbouring areas)
- High ratio of young to adults during certain periods of the year

for further details see document Hab. 01/05