



# **CORINE biotopes manual**

## **Habitats of the European Community**

A method to identify and describe consistently  
sites of major importance for nature conservation

### **Data specifications — Part 2**

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The CORINE biotopes manual is comprised of three separate parts: methodology, the appendices for all data specifications except the habitats of the European Community, which are presented in the third volume.

This volume explains the habitats of the European Community.



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# INTRODUCTION

## Scope

A catalogue of the recognizable communities formed by the flora and fauna in response to the abiotic environment and to each other's influence is a prerequisite to any attempt at characterizing sites in terms of their importance for nature conservation, of inventorying such sites, of constituting coherent networks of protected sites, or of monitoring the evolution of such networks.

The present typological list was developed within the context of the biotope project of the Commission of the European Communities CORINE information and mapping system, as a tool for the description of sites of importance for nature conservation in Europe. It is, however, hopefully susceptible to wider applications in the field of conservation biology.

The primary objective of the list is to identify all major communities whose presence contributes to the conservation significance of a site. It has endeavoured to strike a balance between the need to emphasize the extremely interesting but rare natural or near-natural communities and the widespread semi-natural ones, which result from a long history of extensive use by man and domestic animals and constitute most of the habitat of the larger species of the wild fauna.

Three considerations have mostly guided the construction of the list. Its structure and the arrangement of its units have been chosen so as to keep a permanent and flexible possibility to adapt the classification to needs for finer division of the classes proposed. The units have been defined, as far as possible, to be easily identified by persons in charge of data collecting, conservation decision-making or monitoring. A constant effort has been made to ensure compatibility with other existing schemes and, in particular, those that concern the whole European Community.

## Choice of units

Only the natural, near-natural and sub-natural habitats, all of which are today threatened because they either are rare and extremely local or are dependent on extensive agro-pastoral activities that no longer have an obvious place in the economic fabric, have been treated in detail. The more artificial habitats, which together cover probably 80 to 90% of the surface of the Community, have for the most part been summarily considered under Section 8.

The separate units listed and numbered in the typology have been chosen so as to explicitly identify the communities that either:

- (1) are capable of covering large enough surfaces to be important habitats for animal species with high space requirements;
- (2) are physiognomically significant in the landscape;
- (3) are essential to the survival of distinctive populations of rare or sensitive species of plants or animals;
- (4) constitute necessary elements of larger ecosystems; or
- (5) are remarkable because of the ecological processes they demonstrate or because of their aesthetic value.

In addition, communities of lesser conservation significance, but necessary to the description of sites at a moderately fine level have been listed, mostly in Section 8.

The level of definition thus reflects the differential conservation significance and needs of various types of habitats. It is also directly dependent on the scope of the CORINE project. Habitats that did not figure prominently in the mapping programme, such as marine ecosystems, were not detailed. Amplification of those sections is an obvious field for future revisions.

## Structure

The basic arrangement and the higher rank units (left of the decimal point) were imposed by the need to conform with the categories defined in *Biotoques of significance for nature conservation* (Wyatt *et al.*, 1982) as amended and adopted by the Adaptation Committee of Directive 79/409/EEC and subsequently used in the site designation procedure essential to the application of that directive.

In the subdivision of these basic units, flexibility is ensured by the adoption of a hierarchical decimal list that can be expanded at any point to accommodate further additions or divisions. Such additions can be done whenever needed either for greater descriptive and predictive precision or to accommodate existing local schemes.

The need to make the contents and the limits of the various units easily communicable between various operators led us to use as a main reference the basic units of the phytosociological classification of vegetation. In spite of its well-known limitations, the phytosociological system has the advantage of being founded on a regulated procedure of field sampling, description, definition and agreed nomenclature. However, in order to take into account the faunal significance and the landscape-shaping role of communities, and to allow due space to the more anthropogenic or zoogenic habitat types, we have departed from the higher phytosociological hierarchy and have incorporated a large proportion of reference to physical features, integrated ecosystems and phytosociologically non-significant facies. This has often led to a certain amount of redundancy which is of no adverse consequence to the object of the scheme.

### Compatibility

Throughout the development of the classification great efforts were made to establish or retain compatibility, in the sense of possibilities of one-to-one conversion, between the CORINE classification and two other Europe-wide projects. These are, on the one hand, the Council of Europe *Classification of European ecosystems* designed by J. M. Géhu (1984), on the other hand, the *Carte de la végétation naturelle des États membres des Communautés européennes et du Conseil de l'Europe* that was being prepared by Professor Noirfalise simultaneously with the CORINE project. It must be borne in mind that both these projects are concerned with vegetation, and mostly with natural vegetation, rather than with a broader habitat concept. In addition, whenever the possibility arose, we endeavoured to take into account in the same way local schemes that either existed or were being prepared. The contribution of Ulla Pinborg and of Ruth Briggs and Mark O. Hill in facilitating the establishment of bridges with systems in use in Denmark and in the United Kingdom, respectively, were determinant. Future identifications will, we hope, be facilitated by the possibility of bringing both this classification and the one to be incorporated down to objective field units, at the level of phytosociological associations, sub-associations or their facies.

### Description of units

The brief descriptions of units within the classification and the lists of plants that they incorporate are intended first and foremost to facilitate identification by data collectors, and secondarily, to draw attention to sensitive taxa harboured by the concerned units. The phytosociological terms included are always indicative only, meant to facilitate the identification of the unit, and allowance must, when appropriate, be made for implicit restrictions, such as 'in particular' and 'among others', to any formal identification between the habitat unit and a phytosociological syntaxon. We have tried, whenever possible, to list the best-known phytosociological names and synonyms, and, in particular, those used in the readily available, recent syntheses of Ellenberg (1988) and Oberdorfer (1990), regardless of syntaxonomic or nomenclatural implications; in addition, plant community names adopted by Rodwell (1991) have, in general, been explicitly mentioned. Plant names are, for the most part, those of *Flora Europaea* (Tutin *et al.*, 1964-83), again with no implication as to the appropriateness of the taxonomic treatment adopted in that work.

A great proportion of the units have been seen in the field by the authors or their collaborators, and a photographic file of habitats, animals and plants has been constituted at the Institut Royal des Sciences Naturelles de Belgique. Nevertheless, the descriptions of the units were largely drawn from the abundant literature provided by numerous European phytosociologists whose work has been fundamental to this compilation. The primary descriptions and syntheses specifically used are listed within the hierarchy together with a few readily available works that provide illustration or discussion of the units concerned.

Some of the references and contributions have to be singled out for their importance to all aspects of the list. The fundamental and elucidating descriptive work of Ellenberg (1963, 1988) has provided many definitions, unit names and key species. The construction of the list closely follows the regional syntheses of Oberdorfer (1990), Horvat *et al.* (1974), Ozenda (1985), Peinado Lorca and Rivas-Martinez (1987) and the European overviews of Ozenda *et al.* (1979) and of Noirfalise (1987). The lucid correspondence established between the British National Vegetation Classification and the CORINE typology by Hill (*in litt.*, 1990) has enormously contributed to the presentation of the habitats of an important part of the Community. For particular habitats, the Nature and Environment Series of the Council of Europe and the analysis of forest habitats by Noirfalise (1984) have provided a framework. The hierarchical vegetation list of Géhu (1984), supported by the wealth of information assembled by the Colloques phytosociologiques that he has guided, has been the main leading line of the list.



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### **Revisions**

This list must be regarded as a provisional working document. It certainly contains errors and many omissions as well as obvious areas for further clarification and precision. The authors will be very grateful for suggestions, corrections or subdivision proposals that would be sent to them with a view to a second, more complete edition.

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