

**Guidelines for selection of
biological SSSIs:
intertidal marine habitats and saline lagoons**

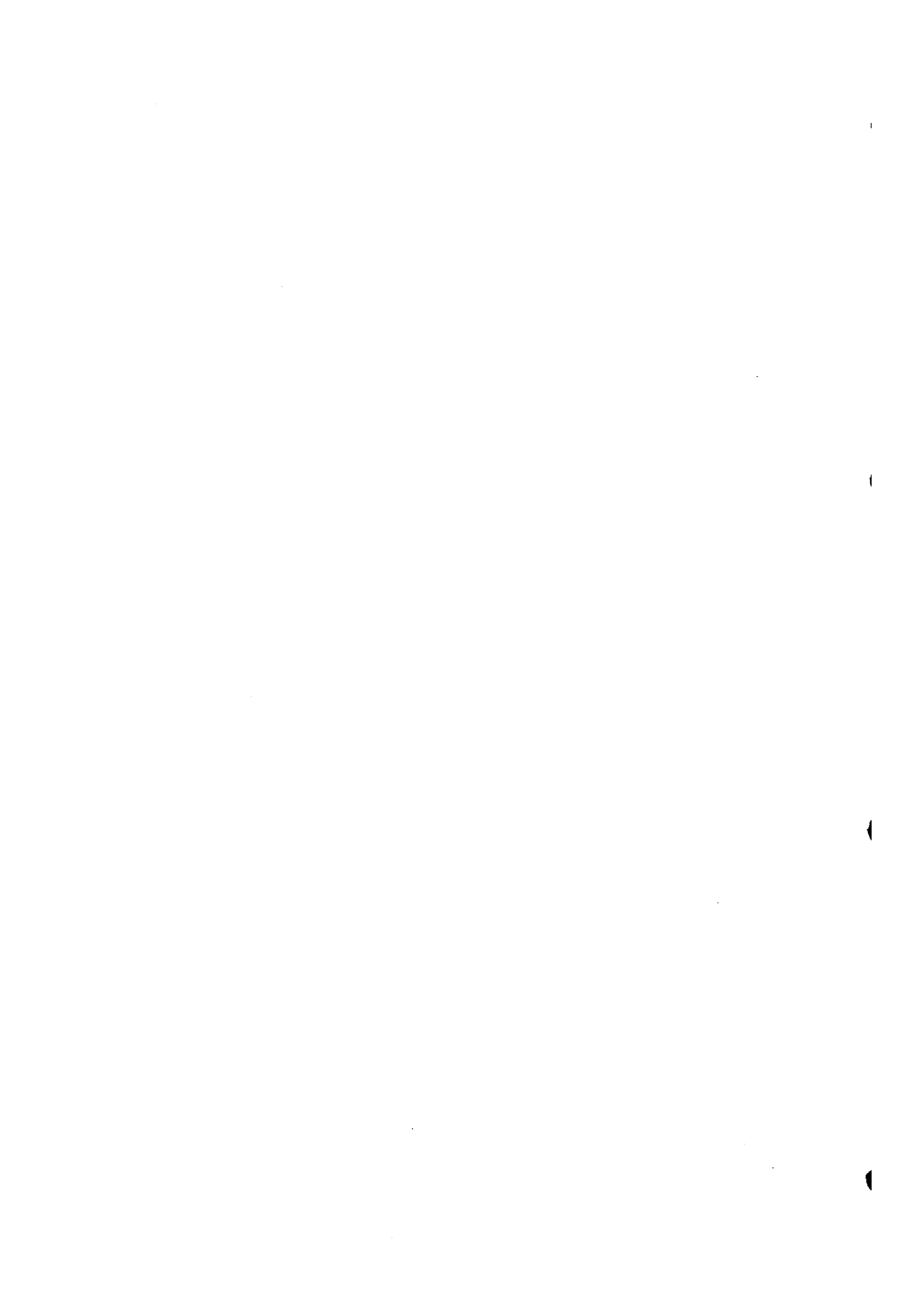
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Foreword

Guidelines for selection of biological SSSIs: intertidal marine habitats and saline lagoons

This document is a supplement to *Guidelines for selection of biological SSSIs* (Nature Conservancy Council 1989) and should be used in conjunction with the original guidelines, which contain an explanation of the rationale behind the SSSI system and of terms such as Areas of Search.

This supplement should be used in conjunction with:

- *MNCR intertidal biotope manual* (Connor *et al.* 1995) which provides detailed descriptions of each intertidal biotope (i.e. a habitat and its associated community) listed here, and
- *Handbook for marine intertidal Phase 1 habitat mapping* (Richards, Bunker & Foster-Smith in prep.) which provides a method for mapping intertidal biotopes.

The guidelines in this supplement only apply to sites being considered for notification as SSSIs following publication of this supplement. They are not intended to apply to previously notified sites or where the notification procedure for a site has already been started at the time of publication.

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Guidelines for selection of biological SSSIs: intertidal marine habitats and saline lagoons

1 Introduction

This document contains guidelines for the selection of intertidal marine habitats and saline lagoons, including their associated communities and species, as Sites of Special Scientific Interest (SSSIs). It is an addition to the original *Guidelines for selection of biological SSSIs* (Nature Conservancy Council 1989), hereafter referred to as the "*Guidelines*". These supplementary guidelines should therefore be applied in close association with the *Guidelines*, which did not include intertidal marine habitats or significant references to saline lagoons. The scope of this supplement is limited to intertidal habitats, saline lagoons and their associated communities and species. It does not cover fringing communities dominated by angiosperm vegetation such as saltmarsh (included in the original *Guidelines*).

Technical terms not defined in the text are explained in the Glossary.

Selection of marine intertidal habitats and saline lagoons is undertaken on the same basis as the selection of other wildlife habitat types, with sites being selected using the same criteria, documentation and procedures. A notable difference is that animals as well as vegetation characterise marine habitats and are therefore important in establishing habitat units and are used in the assessment of habitats.

The primary criteria for site assessment and selection defined in *A nature conservation review* (Ratcliffe 1977) are size, diversity, naturalness, rarity, fragility and typicalness with recorded history, position in an ecological or geographical unit, potential value and intrinsic appeal as secondary criteria. The guidance on these criteria given in this supplement is in addition to that in the *Guidelines* and relates to special considerations needed when evaluating intertidal or saline lagoon marine habitats, communities and/or species.

The procedure for selecting SSSIs takes account of the overall extent and nature of relevant habitats and their associated communities and species in Great Britain using information held by the Marine Nature Conservation Review (MNCR).

For the purpose of guiding assessment and selection, shores and lagoons have been divided into 'selection units' where similar groups of communities are likely to occur. Rocky intertidal areas have been divided into eight units based mainly on wave exposure. Sediment intertidal areas have been divided into four units based on wave exposure and sediment type. Saline lagoons have been separated into five units based on physiographic type. These groupings are described in Sections 2.9.4, 2.9.5 and 3.10 respectively.

In summary, the procedure for identifying an intertidal or lagoonal SSSI is as follows.

- For each of the shore or saline lagoon selection units described in Sections 2.9.4, 2.9.5 and 3.10, available data on plant and animal communities and the species present are assembled. The particular communities or mixtures of communities present at different sites are identified.
- Data from each location are tested against the 'criteria for assessment and selection' and sites with habitat or community features fulfilling one or more of those criteria are considered further.

- Within each Area of Search (AOS), a minimum aim of SSSI selection is to include examples (and preferably the best) of the full range of habitats and associated communities which satisfy the guidelines for selection.
- Particular care is taken to ensure that habitats and their associated communities and species which have a restricted national or international distribution are included in SSSIs. In general, the more important the habitat (according to degree of rarity or if listed in international conventions), the greater the percentage of that habitat that should be selected.

This approach is consistent with that adopted in the *Guidelines* and is important for maintaining consistency across the SSSI series. Chapter 1 of the *Guidelines*, which addressed coastlands, is of particular relevance here given the reference to the selection of marine islands, coastal lagoons, intertidal sediment shores, estuaries and the NVC marine grass *Zostera* spp. community. Some existing SSSIs will therefore already have these features cited. In relation to saline lagoons, Chapter 6 (Freshwater habitats) includes brackish standing waters characterised by *Ruppia* spp. and at least occasional fucoids. The *Guidelines* (p. 116) indicate that special consideration should be given to 'Type 6' open water habitats showing a transition from freshwater to saline conditions and those with a halocline. Some saline lagoons will therefore already have been notified as SSSIs using these broad guidelines.

This supplement to the *Guidelines* is a natural extension of the rationale, operational approach and criteria of the original document. The details given here cover only variations from the original guidance. They cover the key issues that are likely to be of most concern when considering the addition of areas of intertidal marine habitats or saline lagoons including their communities and species to the SSSI series. The selection is oriented towards a 'whole shore' or 'whole lagoon' approach, covering the main, easily recognisable types but with a clear linkage to the more detailed MNCR classification system (Connor 1994). These supplementary guidelines are supported by annexes which provide information on habitats of at least national importance (Annex 1) with their associated communities, and on nationally rare and scarce species (Annex 2).

2 Intertidal habitats

2.1 Introduction

'Intertidal' habitats are strictly-speaking those which occur between the limits of tidal rise and fall. The 'intertidal' is therefore defined by physical boundaries whereas the scientific term 'littoral' is biologically defined and refers to the area of the shore that is occupied by marine organisms which are adapted to, or need, alternating exposure to air and wetting by submersion, splash or spray. On rocky shores, the upper limit of the littoral zone is marked by the top of the *Littorina/Verrucaria* belt and the lower limit by the top of the laminarian zone with the main zone between termed the eulittoral (Lewis 1964). Because of the effects of wave wash and spray, especially on wave-exposed rocky coasts, marine species may extend above extreme high water level. These upper shore (upper littoral fringe) and splash zone (supralittoral) communities are therefore included in this supplement and the term 'intertidal' is therefore used loosely.

This supplement includes communities of the sublittoral fringe, a transition zone