

# Process for submitting new biotope proposals

Have you found a community that doesn't sit well within any existing biotopes in the Marine Habitat Classification for Britain and Ireland? Please let us know at [marinehabitatclassification@jncc.gov.uk](mailto:marinehabitatclassification@jncc.gov.uk).

Propose a **new biotope** when:

- Characterising species do not match those listed in any existing biotope descriptions.
- The new biotope meets the criteria for defining a biotope, outlined below in section 1.

Propose a **revision to an existing biotope** when:

- Characterising species match an existing biotope description, but the environmental conditions differ from those described (e.g. depth range is given as 50-100m, but you have recorded the community at 200m).
- You notice an error in the biotope description.

We aim to reply within a week to request further information, summarised in section 2, below ("Information required in a submission"). The full process is described below in section 3 ("Review process").

## 1 Criteria for defining a biotope

*This text has been taken from the section entitled "Distinguishing and defining types" from Connor, D.W., J.H. Allen, N. Golding, K.L. Howell, L.M. Lieberknecht, K.O. Northen and J.B. Reker (2004) The Marine Habitat Classification for Britain and Ireland Version 04.05. ISBN 1 861 07561 8. Available from <https://mhc.jncc.gov.uk/resources>*

To ensure consistency across the classification in how types are defined, a working definition as to what constitutes a biotope, enabling its distinction from closely-related types, has been developed. The following criteria are applied:

1. The entity can be distinguished on the basis of a consistent difference in species composition based on:
  - different dominant species, some of which (e.g. mussels and kelps) may be structurally important; and
  - the co-occurrence of several species characteristic of the particular habitat conditions (even though some of these may occur more widely in other combinations).
  - A combination of both the presence and abundance of the most 'obvious' species in a community is used. Sub-biotopes are often defined using less conspicuous species.
2. It occurs in a recognisably different habitat (but acknowledging that distinct communities may develop in the same habitat through change with time). Sub-biotopes are often defined on the basis of more subtle habitat differences. Some

highly subtle differences may be critical in determining community structure (e.g. water circulation/exchange patterns in sealoch basins, oxygenation levels in the water column/sediment, sediment structure other than grain size composition). The separate divisions of habitat factors used in field recording are not necessarily reflected in the end division of types.

3. It is a recognisable entity in the field, i.e. it is not an artefact of data analysis.
4. The assemblage of species recurs under similar habitat conditions in (at least several) widely-separate geographical locations. Associations of species confined to a small geographical area are considered unlikely to represent a recurrent community (unless the habitat is considered unique), but should rather be treated as a variation of a more widely occurring type.
5. As a working guide the biotope extends over an area at least 5 m x 5 m, but can also cover many square kilometres, such as for extensive offshore sediment plains. For minor habitats, such as rockpools and overhangs on the shore, this 'minimum size' can be split into several discrete patches at a site. Small features, such as crevices in rock or the biota on kelp stipes, are described as features of the main biotope rather than biotopes in their own right. Some entities, by virtue of their extent around the coast, may warrant description despite showing only minor differences in species composition; such types are often treated as sub-biotopes.
6. It is a single entity in the field, although there may be some spatial variation or patchiness from one square metre to the next. Therefore each area of shore or seabed should correlate to only one biotope defined in classification (a 1:1 relationship of field units to classification units). Whenever possible, the surface species characteristics of sediment habitats (their epibiota) are described in association with the sediment infauna as a single entity, rather than treated as separate communities. Note however that the nature of available data has severely restricted the clear association of these two aspects in the classification as they are typically derived from differing survey techniques. Thus in the present classification there remain units defined primarily on the basis of their epibiota or their infauna but which, given further research, will be shown to be the same biotope. Epibiota-derived biotopes may also 'overlay' a number of infaunal biotopes, which are differentiated by more subtle environmental differences, and thus need to be referred to a higher unit in the classification.

The following considerations are also taken into account in deciding whether to establish a biotope:

- There is a need to recognise that it is commonplace to have no distinct boundary between two different 'types', but a gradual transition, such that distinction of types is somewhat arbitrary at particular reference points or nodes along a continuum. Additionally, some communities may be largely transitional (in a temporal sense) in nature and whilst recognisable in the field represent a stage between two or more 'stable' biotopes. In some areas, e.g. due to periodic disturbance, a community may be held in a transitional or sub-climactic state for prolonged periods and certain habitats may be so variable that the position of a biotope along a gradient cannot be accurately defined. These factors are of critical importance when assessing typicality of a site to a particular type or its quality or conservation importance.
- Where different associations are shown to occur within the same habitat, they may be spatial or temporal mosaics caused by factors such as grazing, disturbance or chance recruitment. These should be linked together in the classification as, for

conservation purposes, it is important to manage or protect the habitat in which several communities may occur over time.

- To produce a practicable working classification it has been necessary at times to be general rather than specific in splitting different types, so that an excessively and unnecessarily complex classification is not developed (bearing in mind the end units that are necessary for practical use).
- Separation of communities can be related to conservation value - does the type add variety (of habitat or species) to a particular stretch of coast. This relates to natural habitats and excludes artificial, polluted or disturbed habitats which should not be considered of high conservation value although they may support distinct communities.

## 2 Information required in a submission

When you contact JNCC to express an interest in submitting a proposal, you will be asked to supply the following information:

- A completed [submission form](#) which contains basic information and will take minimal time to fill in.
- Any report in which the new/revised biotope is described.
- The raw data for samples of the new/revised biotope (stills, videos, grab photographs)
- The metadata for samples of the new/revised biotope in a spreadsheet. As a minimum, this should include: survey name, sample reference, date, depth, equipment type and mesh size (for grabs).
- Interpreted information for samples of the new/revised biotope (PSA results, other substrate classifications, species matrix)
- Outputs from any statistical analysis undertaken (dendrograms, ordinations, SIMPER results, any interpretation of clusters). Ensure you supply enough information so it is clear which clusters the new/revised biotope refers to.

### 3 Review process

The new biotope proposal process runs through three stages, as summarised in the chart below:

1. Submission
2. Review, and if successful
3. Inclusion in the classification.

