

Maritime cliff and slope inventory 2004/2005

A national inventory of Maritime Cliff and Slope is important in delivering a range of benefits, from the implementation of Biodiversity Action Plans (BAPs) to the management of local designated sites and strategic coastal management. This project extends previous work covered in the Maritime Cliff and Slope Inventory (Hill and others 2002).

There were a number of objectives:

- Review additional soft cliff surveys from 2000 to present to map gaps in coverage
- Provide an overview report, to identify the variation and conservation importance of soft cliff habitats
- Review the generic soft cliff survey specification in ENRR 426
- To collate recent GIS and electronic data outputs into a single system to form the basis of a national inventory

What was done

English Nature (now Natural England) area teams were contacted to collate all Maritime Cliff and Slope surveys undertaken since 2000. Survey extents were mapped in a Geographic Information System (GIS), along with those of the pre-2000 surveys (where location or survey extent information was available), to establish the location of all Maritime Cliff and Slope survey data. The Draft Maritime Cliff and Slope Inventory for England and the JNCC Maritime Cliff Database (1986-1989) were used to estimate areas of soft cliff in England. Together, these datasets can be used to infer areas of soft cliff with no known survey.

All of the post-2000 surveys were subjected to rigorous assessment against the ENRR 426 survey, digitisation and attribution standards specification. It was evident that the previous specification was not followed in a consistent manner, with wide discrepancies between

datasets in terms of format, quality and attribution. These limit the ability to draw site-specific surveys into a national maritime cliff and slopes inventory.

Data from post-2000 Maritime Cliff and Slope surveys was "cleaned". Datasets were subject to both manual and automated quality assurance (QA) procedures, before collating them into a single national dataset. Whilst this has been possible for most of the surveys reviewed some did not follow standard NVC procedures (using IHS or Phase 1 classes) that can only be drawn into a consistent dataset at a higher class level.

Results and conclusions

- A specification has been refined, which clearly states the requirements of GIS datasets produced in Maritime Cliff and Slope surveys. Surveyors undertaking new maritime cliff and slope surveys should be supplied with a copy of this and project officers should be familiar with these.
- MapInfo templates have been provided to ensure that data transferred to GIS is in a consistent format (see TIN010). These should be kept in a central location, accessible to all Natural England Area Teams. The templates need to be supplied to contractors undertaking future Maritime Cliff and Slope habitat surveys.
- QA procedures have been written so that Natural England project officers are able to QA data received by contractors, which is essential before the contract is closed (see TIN011). It is

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recommended that no data be accepted before all these checks confirm the compliance with the data formats and attributes. This will ensure a higher quality end product, which can be more easily added to the national dataset.

Natural England's viewpoint

Collation of recent data has enabled the identification of the main areas of Maritime Cliff and Slope in England, although this has highlighted a series of limitations of available data. Data management using GIS is increasingly being used. It is important that project officers running survey projects understand the need to maintain specified standards and are trained to carry out QA procedures so that data can be used, shared and stored effectively and efficiently.

Further information

For the full details of the research covered by this information note see Natural England Research Report NERR003 - *Maritime cliffs and slope inventory 2004/2005*.

For specifications and templates see Technical Information Notes TIN010 - *Maritime Cliff and Slope Inventory: MapInfo Table Specification* and TIN011 - *Maritime Cliff and Slope Inventory: digitising guidelines and QA procedures*.

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