# Marine Data News



#### June 2009

#### **Issue 13 - Marine Data News**

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by Claire Brown - ABPmer



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#### Preparing to establish a network of Marine Protected Areas (MPAs) by Claire Brown - ABPmer

To meet existing international and national obligations, a commitment has been made to deliver a network of marine protected areas in our waters. The selection of such sites needs to be based on the best available evidence so research is being undertaken to collate data (biological, physical and socioeconomic), generate UK wide digital maps (data layers) and determine the best means of access to this information by all end-users.

Objectives of this research relate to both collating and improving data layers on biological and physical aspects of the marine environment. They include data to improve current, and develop new, maps of habitats and species of conservation importance; and geological and geomorphological features; as well as understanding the influence of physical processes on the nature and distribution of marine habitats and species. A separate project has been established to take forward the collation of socio-economic data.

The work will support the delivery of a network of Marine Protected Areas as required to meet existing international and national obligations and commitments, including Marine Conservation Zones (MCZs), a new measure to be delivered as part of the Marine and Coastal Access Bill, and equivalent measures under Scottish legislation.

Datalayers being generated will cover all UK marine waters, including UK offshore waters and territorial waters of England, Wales, Scotland, Northern Ireland and the Isle of Man, see Figure 1 for an example. Activities being undertaken as part of this project include:

- 1. Improving the current marine landscape maps for UK waters and providing a confidence assessment layer where the habitat category is based on modelled data;
- 2. Generating a data layer showing the nature and distribution of geological and geomorphological features found in UK waters;
- Maps showing the distribution of approximately 45 species of conservation importance (including a range of algae, invertebrates and fish); and spawning and nursery grounds for a number of highly mobile species (fish) of conservation importance;
- 4. Maps of the distribution of 15 key non-native species such as the Slipper limpet (*Crepidula fornicata*);
- 5. The distribution of 30 priority habitats (UK Biodiversity Action Plan (BAP) and OSPAR threatened and declining habitats);
- Digital maps indicating fetch and wave exposure, and a combined energy layer for tidal and wave bed-stress (which will be important for understanding their influence on the nature and distribution of marine habitats and species);

- 7. Digital maps of benthic productivity and biodiversity for inshore and offshore areas; and
- 8. Residual current flow mapped to a fine resolution to enable assessments of connectivity.

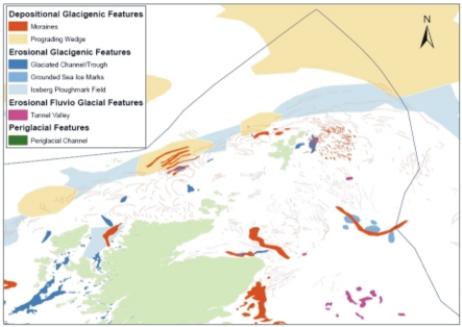


Figure 1. Example data layer identifying geological features (Image: ABPmer)

It is intended that all data layers will be made available in the autumn to inform the selection of MPAs, with the project running until March 2010. The availability of such data layers will also be of importance in underpinning Marine Planning (e.g. licensing) in our marine waters.

ABPmer are leading a consortium of organisations to deliver the project's objectives and are guided by a Project Steering Group consisting of all funding partners. For more information, please contact Claire Brown (023) 8071 1840 **cbrown@abpmer.co.uk** 

#### How are MEDIN and INSPIRE linked?

by Mark Charlesworth - MEDIN

A common query is how does MEDIN link to the European directive Infrastructure for Spatial Information in Europe (INSPIRE)? First it must be highlighted that MEDIN and the implementation of INSPIRE in the UK are at early stages and the relationship between them is evolving so many details still have to be discussed and agreed. Below we describe some of the main relationships which currently exist and may develop in the future:

1) Discovery metadata format. INSPIRE have defined a specific structure to the metadata used to discover data sets. The MEDIN discovery metadata format builds upon this format and therefore is compliant. This means that we can move metadata between organisations that must comply with INSPIRE very easily. If discovery metadata are written in the MEDIN format they can also be considered to be 'INSPIRE compliant'.

2) INSPIRE is in the process of defining specific formats (or data specifications in INSPIRE terminology) for themes of data. MEDIN is also deriving data guidelines which will aid the interoperability of data sets on a theme by theme basis. These data guidelines are not as detailed as an INSPIRE data specification but where there is overlap they will draw on, and be compatible with, the outputs from the INSPIRE data specifications.

3) MEDIN is a registered INSPIRE "Spatial Data Interest Community" and so is able to comment on many of the outputs of INSPIRE to ensure that the needs of MEDIN partners are considered.

4) The UK implementation of INSPIRE is via the UK Location Programme (Led by DEFRA?) and MEDIN is linked into its development through many routes. It is envisaged that the UK Location Programme will derive a discovery portal from which data sets may be searched and early indications suggest that MEDIN may form a 'thematic' part of that.

5) MEDIN will provide updates on the progress of INSPIRE implementation to its partners via the website (<u>http://www.oceannet.org</u>) and through regular articles in Marine Data News (such as this!). Others include: <u>Update</u> <u>on INSPIRE</u> & <u>INSPIRE-ational mapping</u>

Further information on INSPIRE is available from the MEDIN (http://www.oceannet.org/medag/projects/INSPIRE.html), Defra (http://www.defra.gov.uk/corporate/gi/uk-eu-global/inspire.htm) and INSPIRE (http://inspire.jrc.ec.europa.eu/) websites.

## News

## Scottish Marine Bill launched

The Scottish Marine Bill is now before Parliament for its consideration. The Cabinet Secretary for Rural Affairs and the Environment announced the launch of the Bill 30/04/09.

The Bill introduces a framework for the sustainable management of the seas around Scotland, ensuring the need to protect our seas is integrated with economic growth of marine industries. The Bill introduces:

- **Marine planning**: a new statutory marine planning system to sustainably manage the increasing, and often conflicting, demands on our seas
- **Marine licensing**: a simpler licensing system, minimising the number of licences required for development in the marine environment to cut bureaucracy and encourage economic investment
- Marine conservation: improved marine nature and historic conservation with new powers to protect and manage areas of importance for marine wildlife, habitats and historic monuments
- Seal conservation: much improved protection for seals and a new comprehensive licence system to permit appropriate management when necessary.
- Enforcement: a range of enhanced powers of marine conservation and licensing

The Scottish Marine Bill and accompanying documents can be found at <a href="http://www.scottish.parliament.uk/s3/bills/25-MarineScot/index.htm">http://www.scottish.parliament.uk/s3/bills/25-MarineScot/index.htm</a>

Additional documents and information can be found <u>www.scotland.gov.uk/marinebill</u>

The marine bill team can be contacted at email: <u>marinebill@scotland.gsi.gov.uk</u> or Tel No. 0131 244 4079 in relation to any enquiries.

## Marine Survey Data Management Handbook Published

The Marine Survey Data Management Handbook has been published by **BGS**. The handbook describes the management of BGS marine survey data. Experience shows that the cost of managing such data to a high standard at the time it is acquired has little impact on the overall cost of the survey. In comparison, the retrospective indexing, sorting and QC of data can have

significant cost implications, and even then, data can be missing, unusable, or of uncertain reliability.

The data types discussed in this handbook are geophysical and geological (groundtruth) data with associated data types (for example, navigation and calibration data). Geophysical data includes echo-sounder, multibeam, side-scan sonar, sub-bottom profiler, gravity and magnetics. Geological data include sea-bed samples, cores, photographs and video. The handbook can be downloaded <u>here</u> at <u>http://www.bgs.ac.uk/downloads/start.cfm?id=1253</u>

# **Events**

#### **MEDIN Partners Meeting announcement**

## Marine Environmental Data and Information Network (MEDIN): Marine Data flow - Meeting Announcement

10:00-16:30 June 30th 2009 The Foresight Centre, Liverpool

## http://www.foresightcentre.co.uk/

#### Introduction

This MEDIN meeting is open to all with an interest in helping to develop improved access to and management of UK's marine data. The objective of this meeting is to discuss MEDIN plans to improve the "flow" of data from collection to archive and re-use.

The following issues will be covered:

- 1. A Re- Introduction to MEDIN: MEDIN objectives and plans for 2009-2011. We will present an overview of current marine data management arrangements in the UK within the framework being developed by MEDIN partners.
- 2. The UK Policy Context Recent Developments: Marine Bills are now in progress through the parliaments at Westminster and Holyrood, which will put in place new arrangements for managing our marine environment. These in turn are likely to need new arrangements for marine data and data management.
- The European Context: Many of our European colleagues are facing similar challenges. What national frameworks are they building? The new "Marine Strategy Framework Directive" is being implemented across Europe to put in place obligatory monitoring of the health of our marine environment. In addition a number of initiatives are addressing the need

to coordinate management of marine (and other environmental) data on the European Scale: INSPIRE, EMODNET, Water Information System for Europe (WISE).

4. What do I do with my data? The MEDIN Data Archive Centre Framework A more directly practical session: There will be presentations from the main marine Data Archive Centres in the UK, describing their data holdings, and processes for uploading and archiving data. This will lead into a discussion onto how well this framework meets users needs, and how to address any gaps that may exist.

Marine Date News is produced by MEDIN with funding from its sponsors. Contributions do not necessarily reflect the views of MEDIN or its sponsors.

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