# Marine Data News



June 2010

**Issue 17 – Marine Data News** 

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#### MEDIN Partner's Meeting 1st Sept 2010

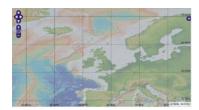
by James Dargie (CCW)



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#### **MEDIN Data Discovery Portal goes LIVE**

by Gaynor Evans (MEDIN)



MEDIN Data Discovery Portal is LIVE at <a href="http://portal.oceannet.org/search/full">http://portal.oceannet.org/search/full</a>

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# The National Marine Biological Analytical Quality Control (NMBAQC) by Prue Addison - NMBAQC



The <u>NMBAQC Scheme</u> is a national quality assurance scheme (QA) which operates within the EU Biological Effects and Quality Assurance in Monitoring (<u>BEQUALM</u>) project. **more** »

# World's Largest Oceanography Library Goes Digital by University of California, San Diego



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If you are interested in attending, please email the MEDIN Core Team.

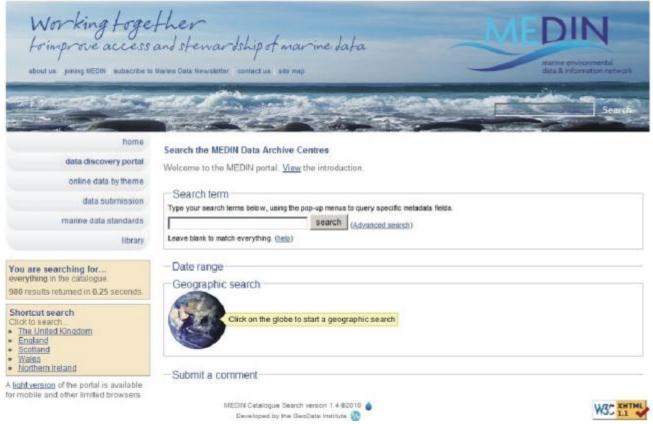
Further details and papers will follow

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## MEDIN Data Discovery Portal goes LIVE

by Gaynor Evans - MEDIN

The new MEDIN Data Discovery Portal is available and can be visited at <a href="http://www.oceannet.org/">http://www.oceannet.org/</a> under the left hand menu bar 'data discovery portal' of the MEDIN home webpage, as well as via a 'quick link' on the right hand side. The portal was built to provide a single point of access to a well-balanced, authoritative marine discovery metadata portal. The user interface is now fully functional and the database currently contains 980 records from Data Archive for Seabed Species and Habitats (DASSH), the UK Hydrographic Office (UKHO) and the British Geological Survey (BGS). The numbers of records will grow over the coming months and years to cover all marine data themes to become the first port of call to discover marine data. So the work is ongoing, and in many respects having the systems in place to be able to do a search is just the beginning.



The new portal user interface has been built by the GeoData Institute at the University of Southampton.

## Is it user friendly?

The intention was to create a user interface that is accessible to the expert and non-expert alike. The front page for the portal is purposefully simple and uncluttered so as not to deter the non-expert; advanced search functionality for the expert user is imbedded within the search headings 'Search term', 'Data

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range' and 'Geographical search'. The user can choose in what order to use the search headings to create a query and is purposefully flexible.

We would welcome your thoughts on the portal which can be sent through to us via 'Submit a comment'. In the coming months, we will be reviewing the portal with a view to its improvement so your comments will be used in the evaluation.

#### **Useful features worth knowing about**

- There is OpenSearch functionality such that the user can search the MEDIN portal directly from their browser search bar
- The portal creates a unique URL for the results page following a user search which can then be saved for future reference or sent to a colleague for them to see the same set of results
- There is a 'light version' function to allow easier access from mobile phones and other limited browsers
- The geographical boundary for a dataset can be downloaded as a KML file
- There are RSS and ATOM feeds of search results

#### How it works

The portal searches a central database of MEDIN formatted records held at the Science and Technology Facilities Centre (STFC) on behalf of MEDIN. Guidance on the format used for these metadata can be found in the 'MEDIN Discovery Metadata Standard' (refer to 'marine data standards' under the left hand menu bar). Metadata records are delivered to the central database via a harvesting operation that daily picks up records from servers hosted at Data Archive Centres (DACs) using Open Access Initiative Protocol for Metadata Harvesting (OAI-PMH) software. User search queries at the portal are sent to the central database via an application programming interface (API) that then returns the relevant records. The user can then peruse the returned records and choose to look at the details for each record, download the record in various CSV and XML formats or return to the search page to update the search or start a search over again. There will be the facility in the future to support querying of metadata held in externally managed archives through use of OGC Catalogue Services for the Web (CSW).

#### How to get your dataset records into the portal

Records can be created in the MEDIN metadata format using the MEDIN online metadata tool (aka 'Discovery metadata editor' at <a href="http://www.dassh.ac.uk/medin\_metadata/login.php">http://www.dassh.ac.uk/medin\_metadata/login.php</a>) which automatically assists with and guides you through production of the record and outputs MEDIN compliant XML files. The XML files and datasets can then be sent to the relevant DAC who will upload the record to the portal and archive the data.

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In the next version of the MEDIN online metadata tool due in July, there will be a function available to export and deliver records straight to the portal. If you have many records from your own metadata holdings to translate into MEDIN format, we advise that you contact us at <a href="mailto:enquiries@oceannet.org">enquiries@oceannet.org</a> so that we can assist you with this.

#### and finally...

We are very grateful to a large number of individuals from the MEDIN community who have given their time and expertise to provide guidance on the design and functionality of this portal.

# The National Marine Biological Analytical Quality Control (NMBAQC) Scheme

by Prue Addison - NMBAQC

The NMBAQC Scheme is a national quality assurance scheme (QA) which operates within the EU Biological Effects and Quality Assurance in Monitoring (BEQUALM) project. It reports to Healthy and Biologically Diverse Seas Evidence Group (HBDSEG) under the UK's Marine Monitoring and Assessment Strategy (UKMMAS). The scheme's principal aim is to provide external QA for marine biological data contributing to UK national or European monitoring programmes. The requirement for QA has been identified by many of the drivers for marine monitoring and ensuring that data is of a demonstrable quality is vital for the UK's marine monitoring aim to "sample once use many times".



The NMBAQC scheme is now in its 17<sup>th</sup> year of existence and has expanded considerably since its original 1994 remit to provide external QA for macrobenthic invertebrate monitoring under the UK's National Marine Monitoring Plan (now Clean Seas Environment Monitoring Programme). Currently the NMBAQC provides external QA for the biological components: Benthic Invertebrate (and associated Particle Size Analysis), Fish, Epibiota, Phytoplankton, and Marine Plants (Macroalgae and Angiosperms). The external QA for these biological components has been developed to address the requirement for QA in assessments under the following directives/programmes: Water Framework Directive, Clean Seas Environment Monitoring Programme, Habitats Directive, and the forthcoming Marine Strategy Framework Directive.

Participation in the scheme has grown to encompass over 50 organisations including government agencies, academia and independent environmental consultancies from the UK and Europe.

The scheme seeks to continually develop by engaging with those working in the marine environment, to ensure the needs of the regulators are met and issues identified by the practitioners are addressed. It continues to promote best

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practice in all aspects of marine biological monitoring including external QA by running external quality control exercises, proficiency tests, training exercises, workshops, and development of guidelines on best practice methods and taxonomic keys.

The NMBAQC scheme is always open to involvement from new organisations who wish to participate and contribute to developments in external QA. For further information please see our website (<a href="http://www.nmbaqcs.org/">http://www.nmbaqcs.org/</a>) where information on each of the scheme components, as well as reports, QA standards, frequently asked questions and a links page can be found.

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## World's Largest Oceanography Library Goes Digital

by University of California, San Diego

Approximately 100,000 volumes from the Scripps Institution of Oceanography Library, the world's largest oceanography library, have been digitised and are being made publically accessible as part of a partnership between Google, the University of California and the UC San Diego Libraries.

In 2008, UC San Diego became the first Southern California university to partner with Google in its efforts to digitise the holdings of the world's most prominent libraries. Since then, approximately 300,000 volumes and other materials have been digitised from UCSD's International Relations & Pacific Studies Library, the East Asian Language Collection and the Scripps Institution of Oceanography Library. The University of California was an early partner with Google, joining the Google Book Search Project in 2006 and agreeing to provide several million books from UC libraries for digitisation. To date, more than 2 million books from UC libraries have been digitised.

"Partnering with Google in this global effort will lead to much greater scholarly and public access to the rich, diverse and, in many cases, rare, materials at the Scripps Institution of Oceanography Library," said Brian E. C. Schottlaender, The Audrey Geisel University Librarian at UC San Diego. "Making this treasure trove of materials accessible to anyone with Internet access is a tremendous boon for scholars, students and interested members of the public."

"I am very proud that another vital part of the Scripps-Google relationship has come to fruition," said Tony Haymet, director of Scripps Institution of Oceanography at UC San Diego and UCSD vice chancellor for Marine Sciences. "Scripps Professor David Sandwell's state-of-the-art bathymetry in 'Ocean in Google Earth' has been warmly received around the world, and I am sure this initiative will be too. The leadership of Brian Schottlaender and his staff in transforming our UCSD libraries into 21st century relevance is outstanding." According to Peter Brueggeman, director of the Scripps Institution of Oceanography Library, the materials digitised by Google include a wealth of books and journals, as well as numerous scientific expedition reports. The Scripps Library's collections cover subjects ranging from oceanography, marine biology, marine geology, marine technology, climate science and geophysics, with extensive resources in ecology, zoology, fisheries and seismology.

"The Scripps Oceanography Library has been in existence for more than 100 years, so digitising and providing access to this extensive book and journal collection helps to create a larger and more complete digital library of materials on the marine environment for searching and use, including older works dating back to the 18th century in full-text," said Brueggeman. "While these books and other materials have long been available on our library shelves for individual use, Google Books' in-depth cross-collection searching feature is

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definitely a game-changer for scholarly research. Through word and phrase searching, all books on specific topics can be identified and reviewed by scholars for their research needs. The Scripps Library has scientific journal runs going back to the early 1800s, and many have never been available in an electronic format. Google's digitisation of our journal backruns makes these older scholarly resources searchable for scholars and other researchers."

The digitised materials include numerous research expedition reports documenting scientific observations and discoveries dating back to the 1800s. These works, which laid the foundation for modern oceanography, include a report on crustaceans (The Stalk-eyed Crustacea, Walter Faxon, 1895) collected on a U.S. expedition to central and South America and the Galapagos on the famous ship Albatross. The Albatross, a ship built by the U.S. government specifically for marine research, was a precursor to today's U.S. oceanographic fleet of ships. Another report (The Fishes of the Swedish South Polar Expedition, Einar Lonnberg, 1905) documented the fishes collected on a famous Antarctic expedition, the Swedish South-Polar Expedition of 1901-1903 led by Otto Nordenskjold. Although the expedition was a great scientific success, resulting in the collection of many species new to science, their ship was crushed by ice, forcing the crew to build and live in a stone hut on an Antarctic island, subsisting on bird's eggs and penguins, until they were rescued by a ship from Argentina. Other digitized works include: The Medusae, (1909) by the pioneering ocean researcher Henry Bigelow, the founding director of the Woods Hole Oceanographic Institution; The Echinoderm Fauna of Torres Strait: Its Composition and Origin (1921) by Harvard zoologist Hubert Lyman Clark; and The Land and Sea Mammals of Middle America and the West Indies by zoologist Daniel Giraud Elliot, one of the founders of the American Museum of Natural History in New York and the American Ornithologists' Union.

"Digitisation of the oceanographic expedition reports and older journals from the 1700s and 1800s is very exciting," said Lisa Levin, a biological oceanographer at Scripps Institution of Oceanography. "Scientists in those days made some extremely astute observations; most have been lost to the general scientific community simply because the documents reporting them have not been accessible. Those early observations take on greater significance as environments change and species disappear in the anthropocene (due to climate change, pollution, habitat degradation, overfishing and species invasions). They may hold the key to understanding conditions and ecosystems of the past, which will help us in coming to grips with the future."

According to Levin, who has utilised the Scripps Library's expedition reports in her teaching, the digitisation of the early documents also allows students and historians to better understand the evolution of modern ideas and understanding. "For example, I ask my deep-sea biology students at Scripps to track an idea, theme or taxonomic group from the start of the discipline to the present using the historical literature."

The Scripps Institution of Oceanography Library, one of nine UC San Diego Libraries, supports the research and teaching efforts of Scripps Institution of Oceanography, the world's preeminent center for ocean and earth science. Since its inception in 1903, Scripps Oceanography has led the global effort to understand the oceans, atmosphere and earth for the benefit of society and the environment. Scripps has played a key role in defining the science of oceanography; Scripps scientists have pioneered research in climate change, pollution, earthquakes, and marine life and conservation.

The Google project is helping UC San Diego and other university libraries to create digital access to thousands of texts and scholarly materials. Consequently, this helps to protect and preserve library collections for future generations and from catastrophic loss such as an earthquake or fire. As part of the agreement with Google, the University of California is receiving digital copies of all books and other materials scanned from the UC libraries. The university's copies are stored in HathiTrust, a shared digital repository developed in partnership with other major research institutions across the country.

The digitised books from the Scripps Institution of Oceanography Library and other materials from the UCSD Libraries are accessible via the Google Book Search index. The search engine allows anyone to search the full text of books from libraries and publishing partners. For books in the public domain, readers will be able to view, browse and read the full texts online. For books protected by copyright, users can access basic background (such as the book's title and the author's name), a few lines of text related to their search and information about where they can borrow or buy a book.

Since the Google Book Search Project's inception in 2004, Google has digitised more than 12 million books from libraries and publishing partners throughout the world. In addition to the University of California, other libraries at the University of Michigan, Harvard University, Stanford University and Oxford University are among those that have also partnered with Google. Google's ultimate goal with the project is to make all of the knowledge contained within the world's books searchable and discoverable online.

The UC San Diego Libraries, ranked among the top 25 public academic research libraries in the US, play an integral role in advancing and supporting the university's research, teaching, patient care and public service missions. The nine libraries that make up the UCSD Library system provide access to more than 7 million digital and print volumes, journals and multimedia materials to meet the knowledge demands of scholars, students and members of the public. Each day, more than 7,300 people stream through one of the university's nine libraries. The Libraries' vast resources and services are accessed more than 87,500 times each day via the UCSD Libraries' website.

#### Original article

## News

## 1st Conf. on Information Strategies for Marine Spatial Planning

Register here for the 1st Conference on Information Strategies for Marine Spatial Planning jointly hosted by IMarEST and AGI.

Call for papers - please submit abstracts <u>here</u>.

## **Charting Progress 2 - The State of UK Seas**

Charting Progress 2 will be launched on the **21st July** by the Parliamentary Under Secretary for Natural Environment and Fisheries, on behalf of the UK Marine Monitoring and Assessment Community. Charting Progress 2 is an authoritative report on the state of the UK's seas, gathering together a huge body of evidence from marine agencies, research institutes, universities, environmental organisations and industries around the UK. It allows us to assess the progress we have made towards achieving clean, healthy, safe, productive and biologically diverse oceans and seas since the first Charting Progress report in 2005.

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