

SCOTLAND'S MARINE ATLAS JOINS ICAN

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Introduction

Scotland is developing marine planning to provide integrated management of the Scottish marine environment and to manage the activities that take place there. The Marine (Scotland) Act 2010 introduces this and also re-

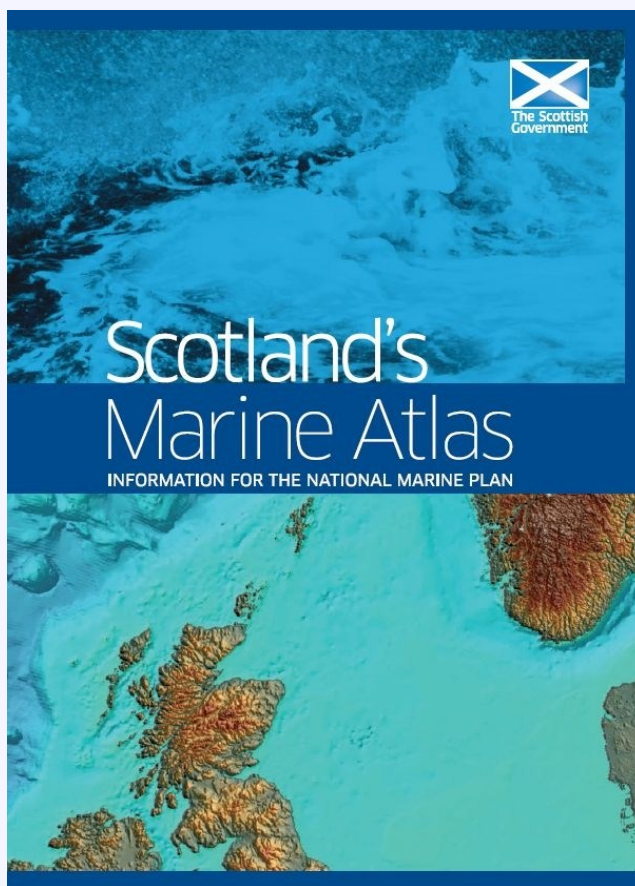


Figure 1: Cover of Scotland's Marine Atlas
(www.scotland.gov.uk/marineatlas)

quires an evidence base to be developed to support the development of our first National Marine Plan.

A tool for marine planning and an assessment of the seas Scotland's Marine Atlas, published in March 2011 (hard copy, HTML and pdf) is that "Information for the National Marine Plan". It is also an assessment of the condition of Scotland's seas, which is based on scientific evidence from data and analysis, supported by expert judgement.

The Atlas is an innovative publication which, for the first time, brings together and maps a huge range of information about Scotland's seas. It takes on a coffee table atlas approach with spreads of information. The contents range from temperature, salinity and ocean acidification to habitats

and species, from the value of fish landed to biotoxin monitoring and potential sites for marine renewables. The information is presented in a colourful and easily accessible way, with signposts to further information, and centres around maps to provide a spatial dimension.

A collaborative effort

The Atlas was a significant collaboration between Marine Scotland, Scottish Natural Heritage, Scottish Environment Protection Agency, the Joint Nature Conservation Committee and the Marine Alliance for

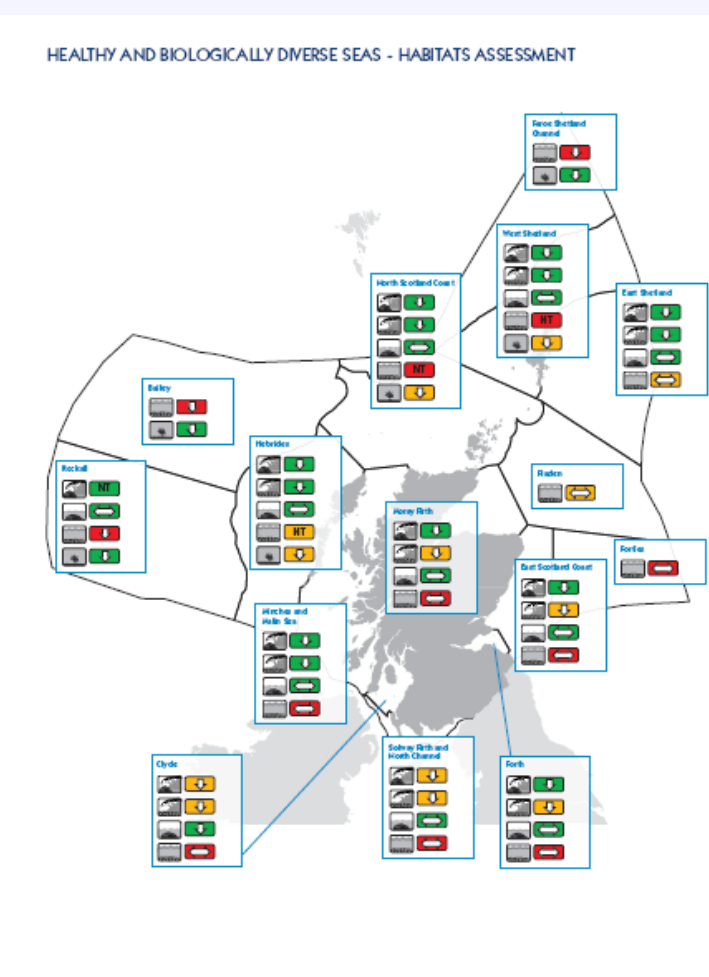
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The data source and reference Annexes demonstrate the breadth of information used to present this comprehensive report (including non-Government bodies such as the Marine Conservation Society, Keep Scotland Beautiful and the Royal Yachting Association).

The data are categorised against the elements of the Scottish Government's vision for the seas – clean and safe (hazardous substances, biological effects, eutrophication etc); healthy and biologically diverse (protected areas, species and habitats, etc); and productive (full range of economic activities). In addition there are more general sections on physical characteristics (waves, tides etc) and climate change. In this way, the Atlas provides a valuable report on the current state of the marine environment, the main pressures and impacts upon it and the value the seas provide to the national economy. As many data sets as possible are mapped based and presented with graphs around for them for ease of making spatially aware conclusions.

A web-based GIS version is now under development to provide interactive maps and downloadable data sets based on those in the Atlas. At this stage the exact requirement for marine planning both in terms of data sets and its presentation are not known. We are taking an evolutionary approach



by starting with making the Atlas available in a simple interactive tool and then asking stakeholders what more is required for marine planning at both the national and regional levels.

<http://www.scotland.gov.uk/Topics/marine/seamanagement/nmp/home> version of the Atlas will have two key aims – to underpin the new statutory system of marine planning (nationally and regionally) and to educate and inform the wider public. To do this, it will bring together the large range of evidence used in the Atlas on-line for the first time. This includes data which are already relatively accessible (e.g. monitoring data required to report against European Directives) and other data, some of which have

Figure 2: Fishing “spread” showing catches per sea area (graphs) and landings (pie charts)

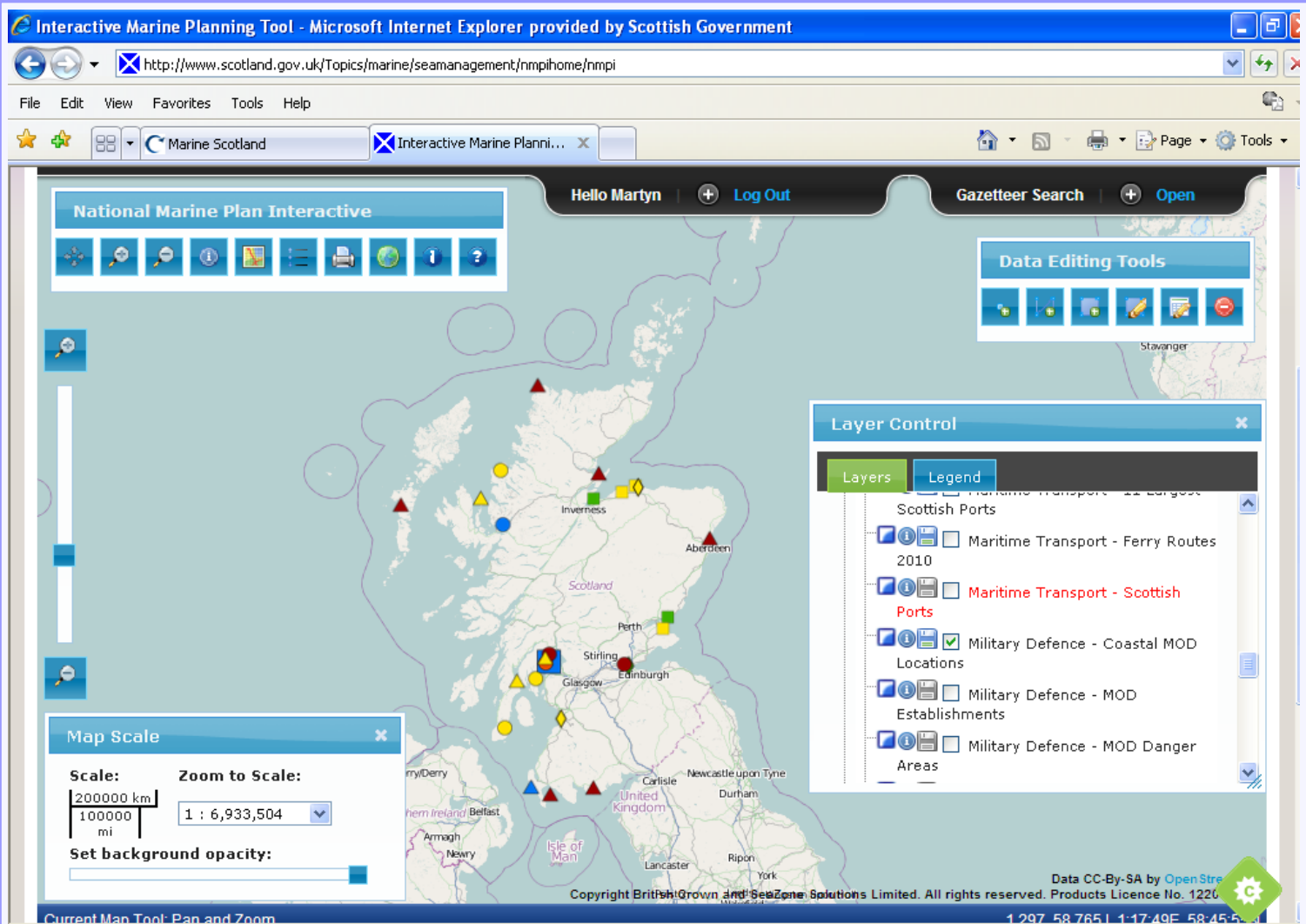


Figure 4: Screen shot of the developing national marine plan interactive

been commissioned specifically or analysed differently.

Where possible, data are presented at both a national and a regional scale, to aid planning at both these levels. Presenting data this way also creates challenges since many data sets have long established ways of being presented. Marine planning requirements will question the way some things are done.

Challenges ahead

There will be many challenges ahead. The full breadth of requirement for marine planning is not known and the spatial tool will have to evolve. In doing this there will be many, no doubt competing, demands. In a time of government financial restraint the system will evolve as we establish what is required and what can be afforded.

Accessing data still remains an issue, not all sets can be openly shared without restriction yet, as does keeping any data sets up-to-date. The rapid rate of technological change will no doubt create a challenge as the possibilities are ever increasing. What we do know is that we need to do this: we

have a legislative requirement and stakeholder expectations to meet.

Irish Government releases Integrated Marine Plan

On 31 July 2012, the Taoiseach [Prime Minister of Ireland], Enda Kenny, launched an integrated marine plan titled **“Harnessing Our Ocean Wealth”**. Of interest to ICAN members is the inclusion in the plan of actions for developing marine Information and Communication Technologies and Marine Spatial Planning. For more information on the plan visit: <http://www.ouroceanwealth.ie/Pages/default.aspx>

The Coastal Marine Research Centre (CMRC) at University College Cork, home to our Irish ICAN members, responded to the plan by saying “CMRC is well placed to play a part in implementing the plan’s goals. Over the last ten years we have augmented research expertise in the chief sectors outlined in the plan, principally fisheries, tourism, oil and gas, renewable ocean energy and marine technology.”

ICAN Technicalities

Activities of the ICAN Technical Team

Roy Lowry (rkl@bodc.ac.uk) and Adam Leadbetter (alead@bodc.ac.uk), BODC, Liverpool, UK, Declan Dunne (d.dunne@cmrc.ie) and Yassine Lassoued (y.lassoued@cmrc.ie), Coastal and Marine Research Centre (CMRC), Cork, Ireland, Tanya Haddad (Tanya.haddad@state.or.us), Oregon Coastal Atlas Project, USA, Liz O'Dea (liz.odea@ecy.wa.gov) State of Washington Department of Ecology, USA

ICAN Cookbooks

The last issue of the ICAN newsletter (Volume One, Number 1, March 2012) outlined the need for technical training material for coastal web atlas developers in the form of cookbooks, and how the NETMAR project has produced cookbooks to contribute to this training material. In June 2012, the NETMAR team has revised and updated these cookbooks based on feedback. The cookbooks explain key information behind NETMAR's ICAN demonstration pilot. Central to these cookbooks is material to help atlas developers connect to the International Coastal Web Atlas (ICWA) prototype. It is a prototype atlas mediator that provides a common interface for accessing distributed local atlases, such as MIDA (Marine Irish Digital Atlas), OCA (Oregon Coastal Atlas), Washington Coastal Atlas (WCA), etc. It uses a knowledge organization system to improve data discovery by exploiting the semantics of keywords and allowing users to search data by "meaning" rather than by "mere keywords".

Four cookbooks are included which covers key material concerning the technologies and standards utilised by the ICWA prototype:

- Understanding Semantics;
- Understanding Metadata;
- Establishing a CSW metadata catalogue with GeoNetwork; and
- Connecting your Atlas to the ICWA prototype.

The "**Understanding Semantics**" cookbook provides a tutorial for those who wish to investigate and make use of semantic web and knowledge organization system technologies. These technologies fall broadly into three groups: vocabularies, thesauri and ontologies. This cookbook includes material explaining how to deploy semantics that are required by the ICWA prototype, utilising the NERC Vocabulary Server (NVS) infrastructure.

The "**Understanding Metadata**" cookbook provides a tutorial for those who wish to understand metadata. Included is a description of metadata and why we need it, metadata standards in use today, description of different metadata hierarchy levels, and a list of some metadata editing tools available. The section also references example metadata records aimed

at system developers who are familiar with ISO 19115/19119 metadata implemented in ISO 19139 XML. These metadata examples include semantic keywords which are registered in the NVS.

The "**Establishing a CSW metadata catalogue with GeoNetwork opensource**" cookbook provides a tutorial for those who wish to understand CSW (Catalog Services for the Web) metadata catalogues. Included is a description of a metadata catalogue, the CSW standard, and a list of selected CSW servers. The document also contains initial pointers to establishing a CSW server using GeoNetwork open source and examples of selected CSW query operations aimed at system developers. GeoNetwork is recommended and used by the NETMAR project.

The "**Connecting your Atlas to the ICWA prototype**" cookbook provides a step-by-step guide explaining how to connect a local atlas as a node in the ICWA prototype utilising technologies and standards described in the other cookbooks. This cookbook specifies the ICWA connection requirements including metadata (ISO 19115/19119/19139), CSW metadata catalogues (CSW 2.0.2, ISO Metadata Application Profile version 1.0.0), and supported ISO 19139 encoding forms for semantic keywords.

The four cookbooks are available in a single PDF file that is currently located at

http://netmar.nersc.no/sites/netmar.nersc.no/files/D7.9.2_ICAN_semantic_cookbooks_r2_20120731_0.pdf

Please get in touch with Coastal and Marine Research Centre (CMRC) if you wish to give feedback.

International Coastal Web Atlas prototype

The Geomatics team of the CMRC, University College Cork (UCC), in partnership with the British Oceanographic Data Centre (BODC), are currently developing the third version of the International Coastal Web Atlas (ICWA) prototype as part of the EU FP7 NETMAR project. ICWA 3 will replace the current ICAN prototype and aims to become an operational web application that allows seamless and semantically enabled access to the ICAN atlases.

ICWA 3, which will be released by the end of October 2012, will include the following features and improvements since version 2:

- a standardised semantic resource structure based on SKOS (Simple Knowledge Organization System);
- an advanced thesaurus browser that displays term hierarchies, related terms, definitions, synonyms, etc. (Figure 1);
- smart search;

(continued on page 5)

- the ability to connect an atlas without requirements for ontology development;
- improved storage and management of ontologies with faster access;
- a standardised semantic web service (SWS) will allow external applications to interact with the ICAN thesauri;
- support for Catalog Service for the Web (CSW) 2.0.1 and CSW 2.0.2 nodes,
- support for CSW 2.0.2 queries; and
- improved search performance.



Informal ICAN workshop before Littoral 2012

An informal workshop of ICAN members and other interested parties will take place on Monday 26th November 2012 (2:00pm – 5:30pm), at the IODE headquarters in Ostend Belgium. A key objective of the workshop, organized to coincide with Littoral 2012, is to present and collect feedback from the ICAN and wider coastal community on the latest version of the NETMAR/ICAN prototype interoperability platform, which facilitates the connection of multiple atlases and the search and viewing of metadata and data. The overarching goal of the FP7 funded NETMAR project (<http://netmar.nersc.no/>) is to develop a pilot European Marine Information System for searching, downloading and integrating satellite, in situ and model data from ocean and coastal areas.

You will find out about the prototype functionality and will have the opportunity to provide input to assist development of the final version. You will also learn how to connect your own atlas to the platform and what resources are available to assist you in this task. Moreover, the utility of Web Processing Services and service chaining, used in other NETMAR application areas, will be demonstrated.



This meeting also provides the opportunity to launch officially the IODE ICAN Pilot Project in the lead-up to its establishment as a full IODE Project that will be proposed to the 22nd session of the IOC Committee on International Oceanographic Data and Information Exchange (IODE-XXII) in March 2013. We will also explore stories on the use of coastal and marine atlases based on the experiences of the African and Caribbean Marine Atlases. The workshop provides an opportunity to review and develop the ICAN draft work plan to be presented at IODE-XXII, as well as preliminary discussions on the themes to be the focus of the next workshop of the full ICAN community in June 2013 (to be held in Victoria, Canada).

Attendance at the event is free and participants from outside the current ICAN community are most welcome, especially those currently using, or contemplating creation of coastal or marine atlases.

Please contact Ned Dwyer (n.dwyer@ucc.ie) before October 26th 2012 to reserve your place at the workshop.

ICAN 6



The sixth international workshop for the International Coastal Atlas Network will be held before CoastGIS 2013 on 16-17 June 2013 on the campus of the University of Victoria in Victoria British Columbia, Canada. Stay tuned for details.



18-21 June 2013
Victoria, British Columbia, Canada
Monitoring and Adapting to Change on the Coast

Visit www.coastgis2013.ca for the Call for Papers and Call for Workshop Proposals

Smart Atlas Enhances Marine Data Sharing in Africa

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As part of UNESCO's International Oceanographic Data and Information Exchange (IODE) Ocean Data and Information Network of Africa (ODINAFRICA) project, the Coastal and Marine Research Centre (CMRC) has developed a second version of the underlying technology used in the Marine Irish Digital Atlas (MIDA: <http://mida.ucc.ie>). This system called

Smart Atlas is being deployed and used by ODINAFRICA partners. Smart Atlas includes up-to-date web mapping technologies to make it easier to explore coastal and marine information through the development of web-enabled, customised Geographic Information System (GIS) that allows users to visualise and identify marine sources of data. A key feature of Smart Atlas is that it promotes and supports distributed marine dataset sharing, which is vital to facilitate marine information exchange between coastal African states.

This project follows INSPIRE (Infrastructure for Spatial Information in Europe) Directive recommendations for Data discovery, view, and download services. Being conformant to well established web services makes the services developed available to other organisations to consume and view with minimum effort of integration. The new web client mapping application features expanded functionality, plug-in-free animation, and a new architecture with a rich user experience for every browser. The system provides greater accessibility to data and information in the form of a web enabled and customized GIS, data access and data analysis combined with mapping tools for identification of data sources, visualisation, management, and analysis for different use case scenarios.

Smart Atlas is developed using open source software technology with greater performance, a much more simplified, flexible, and customisable interface using the latest JavaScript frameworks and it supports new mapping tools for adding features, zooming, drawing, measuring, and customised printing. Smart Atlas Layers contain views of layers organ-

ised in different tabs with built-in base layers, such as Google maps and Open Street maps, overlays that includes the atlas layers and selected layers that contains the list of active layers, sorted by depth, with the possibility of changing the layer order and layer transparency.

Smart Atlas introduces the integration of Catalogue Services for the Web (CSW). The atlas can be configured to connect to metadata catalogue servers (e.g. Geonetwork, ESRI ArcServer, etc.) so that users can search for data layers within the atlas or other metadata stores included in the search

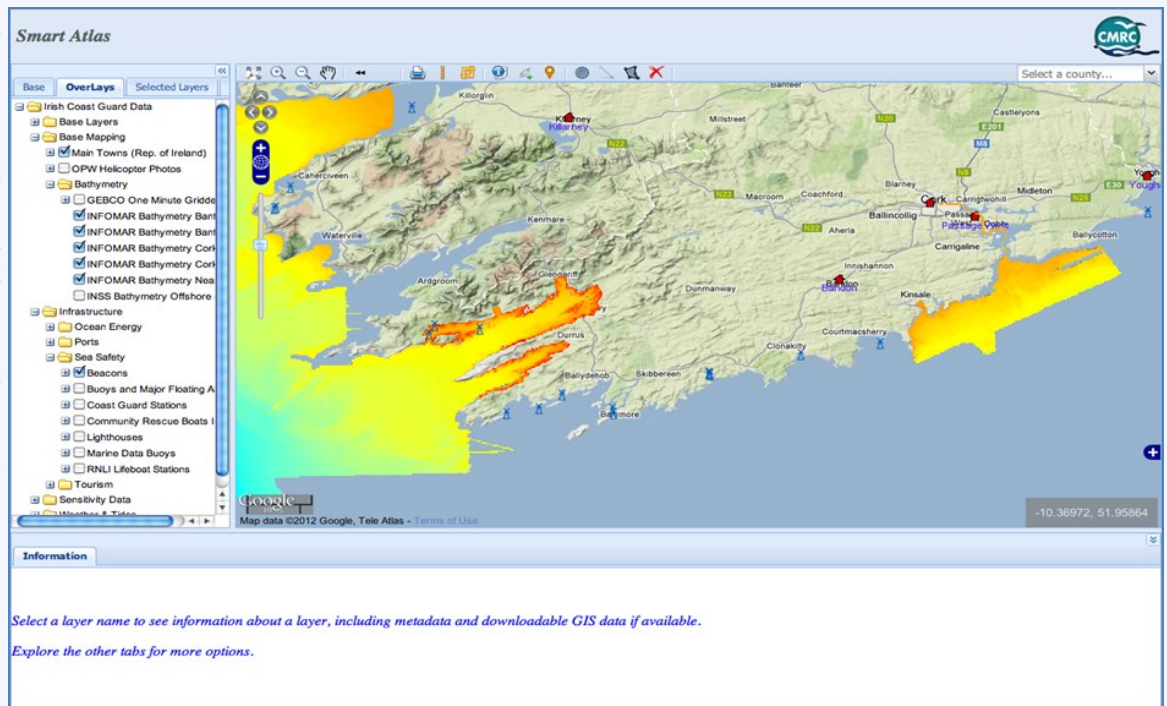


Figure 1: Smart Atlas View Services. This example shows bathymetry around southern Ireland.

through the distributed CSWs.

Metadata provides information about the content, purpose, location of the data, as well as quality and reliability of the data itself. Using standard metadata web protocols makes the mediation and integration between different metadata providers seamless. Standardised metadata supports users in accessing data by using a common set of terminology and metadata elements. This allows for a quick means of data discovery and retrieval from metadata catalogue servers. The metadata based on standards ensures information consistency and quality, and avoids the loss of important knowledge about the data.

Smart Atlas supports distributed Catalog Service for the Web (CSW) search. The search can be done through a simple and advanced search. The user can simply enter free text in a box and hit the search button or do an advanced search using more detailed criteria like controlled vocabulary keywords that support a more standard search based on keywords pub-

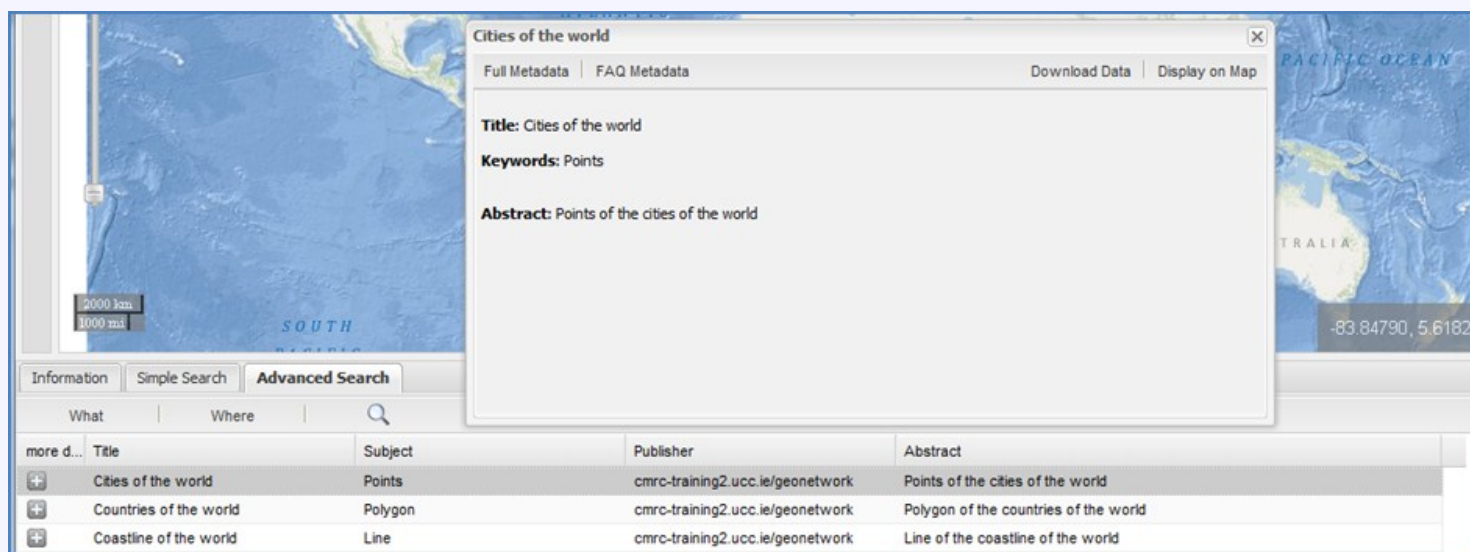


Figure 2: Example of a summary metadata record returned from a search. Data visualisation and download is also available.

lished by standardization organizations. Users can also select a geographic extent for the searched metadata records. Participating metadata server catalogues can be selected by the user to be validated and included in the search.

Three methods are used for presenting metadata record search results. These are Summary metadata record, Full metadata record and FAQ Metadata record viewed as a simple FAQ style where basic questions/answers about the metadata record are presented.

Once a particular metadata record is presented, it is also pos-

sible to either download the datasets associated with it or overlay these datasets on the mapping area through Web Map Service (WMS) for further analysis. This is designed to enhance spatial information exchange, and promote sharing between different organisations through instant search on local and distributed geospatial catalogues.

The CMRC is making Smart Atlas available for download and use via an open source free software license. Contact Ali Al Othman for further details and for the available support options. A Smart Atlas user training workshop for ODINAF-

Regional Data Management and Portal Design Workshop / New Marine Planning Listserv

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The NOAA Coastal Services Center hosted a Regional Data Management and Portal Development Workshop in Charleston, SC on June 27-28, 2012. The objectives of the workshop were to build awareness among participants of the status of existing regional and national marine information systems; develop strategies for integration of national and regional coastal and marine data and systems-related activities; identify common data management and exchange standards and procedures; and identify methods to increase collaboration among marine data management groups. The workshop report can be found here: [link](#)

Based on feedback received during this workshop, the ocean.data.gov team recently created the Marine Planning Portal Network listserv, which will serve as one of the main conduits for communication between state, regional, and national portals, applications, and planning efforts. As systems become more distributed and technology continues to evolve, the need to share information (lessons-learned,

best practices, etc) and provide a venue for open dialogue is paramount. This listserv is designed to serve this purpose. If you are interested in joining the listserv, please visit the following link to register - [link](#)

In addition to the listserv, the following ideas have been discussed to help spark engagement and continue the discussions from the Workshop -

Webinar Series

The frequency of these is still to be determined but the initial thought is to have them every other month, focused on the following -

Round Robin Updates - Short updates on the current status of state, regional, and national efforts. Used for quick information sharing and also to spark interest in technical topics, issues, or additional discussion

Featured Presentation - In-depth presentations/demonstrations of existing products or beta releases

Technical / Topical Discussions - Based on the input from the Network, these could focus on a certain technical issue, topic, or discussion point. For instance, this could be the start of a

discussion on a Network-wide metadata strategy.

GeoTools Conference Tools Showcase

Similar to the Map Gallery at the ESRI UC, this is an informal opportunity to present/demo your tool and application. A dedicated space may be available to highlight the various state, regional, and national applications and portals.

Oral Presentation

Based on interest, there may be a track or session dedicated to Regional Data Management and/or Portal Design.

Informal Network Lunch/Happy Hour

Lastly, there are plans to re-design the Technical Community of Practice ([link](#)) within the Ocean Community to serve as a landing page for this Network. The new webpage will more effectively provide access to the best practices and resources most relevant to your efforts and serve as a location where a variety of information relevant to this Network can be accessed.

Washington Coastal Atlas Continues Upgrade

Liz O'Dea

Washington State Department of Ecology
lode461@ecy.wa.gov

The Washington Coastal Atlas (<https://fortress.wa.gov/ecy/coastalatlas/>) team has completed phase two of its three-phase redesign project. In addition to its new look and feel, the atlas now has four use-specific tools that users can access directly from the home page.

Shoreline Photos: The Washington Department of Ecology's oblique photo time series of Washington's marine and freshwater shorelines has been the most widely used component of the Coastal Atlas over the years. The new Shoreline Photo viewer improves the ease of finding a photo for a specific area from multiple time periods. The viewer enables users to quickly navigate through images along a shoreline and simultaneously see the location on a map. It also provides a comparison page, where users can view the same area over time from the collection of years. Each year's photos can be independently navigated so

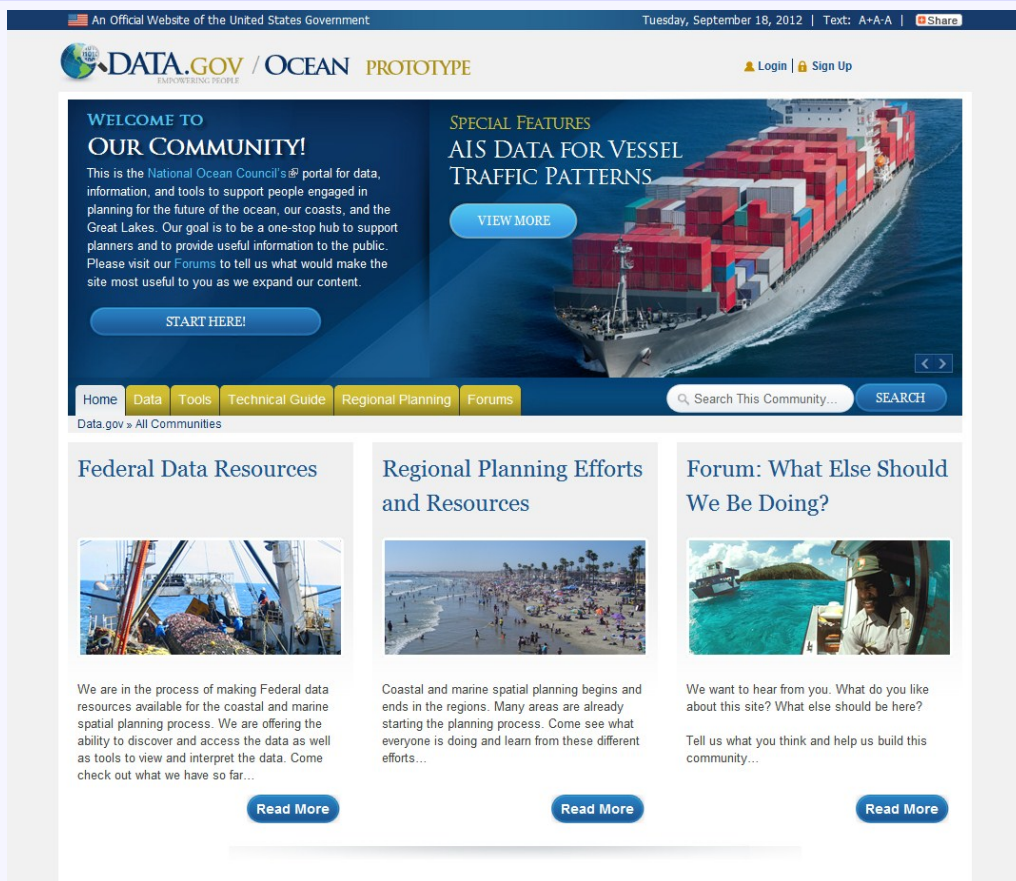
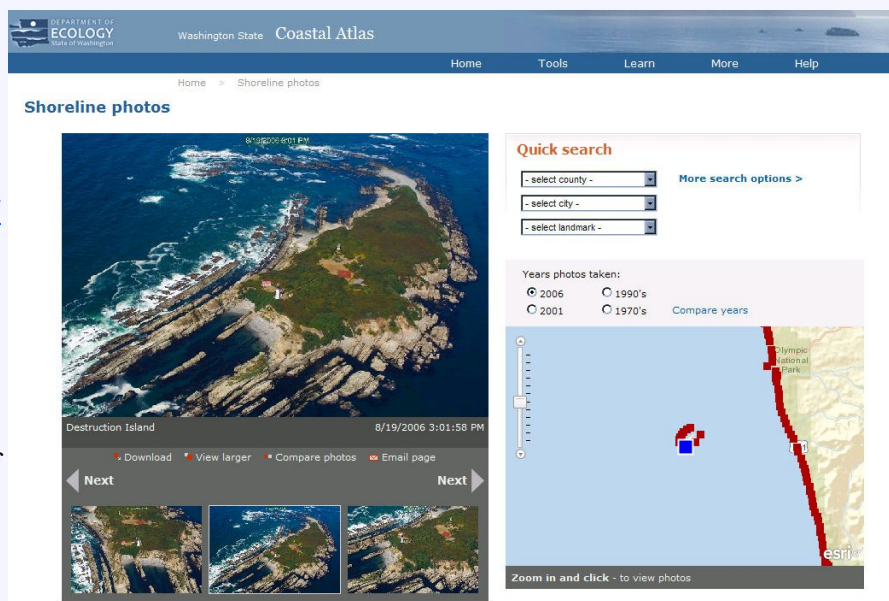


Figure 1: Screen shot of the website data.gov/ocean

NOAA Coastal Service Centre www.csc.noaa.gov



that the user can choose the images that allow the best shoreline comparison.

Flood Hazard Maps: A new viewer for FEMA flood maps makes Digital Flood Insurance

Rate maps downloadable directly from the Coastal Atlas, which helps inform real estate decisions and transactions. The ability to view flood maps superimposed on aerial photography helps people better understand flood issues within the context of the landscape.

Public Beach Access: Public access is only available on about 30% of Washington's marine shorelines, and the public's right to access the shoreline is one of the three pillar policies of Washington's Shoreline Management Act. We have made it easier for people to discover where they can access the shore. People can find beaches by name, location, or by specific amenities or activities. Beach information includes photos, amenities, directions, and links to tides, weather, and local information sources.

Beach Closures: Users can also find beach closure information and monitoring results for all locations monitored by the Dept. of Ecology/Dept. of Health BEACH program.

Former Washington Coastal Atlas Manager and ICAN member Kathy Taylor has transitioned to another position in the Department of Ecology. She was a wonderful leader who guided us through the first two redevelopment phases, and was a strong cheerleader on the

value of the Washington Coastal Atlas for the people of Washington State. Her replacement, Brian Lynn, has been involved with the Coastal Atlas for many years and leads us forward through our third phase of redevelopment: migrating the Washington Coastal Atlas Map from ArcIMS to ArcGIS

DEPARTMENT OF ECOLOGY
State of Washington

Washington State Coastal Atlas

Home Tools Learn More Help

Home > Shoreline photos > Compare photos

Shore Photos: Compare

Next 2006-07 Next
Dalco Passage, Point Defiance 7/27/2006 1:40:53 PM
View larger Download View single year

Next 2000-02 Next
Ruston ASARCO Plant 8/17/2000
View larger Download View single year

Next 1992-97 Next
Asarco Smelter, Dalco Passage 5/16/1992
View larger Download View single year

Next 1976-77 Next
Ruston ASARCO Plant 8/17/2000
View larger Download View single year

DEPARTMENT OF ECOLOGY
State of Washington

Washington State Coastal Atlas

Home Tools Learn More Help

Home > Flood Hazard Maps Start > Flood Hazard Maps

Flood Hazard Areas

Search by:
Address
City
State ZIP Code
WA
Find

County
- select county -
City
- select city -
Community Panel #
- select FIRM panel -
Find

Download data
View disclaimer

Legend

- Base flood elevation
- Flood hazard area Q3, not yet updated
- Floodway
- 1% chance flood ANNUAL
- 0.2% chance flood ANNUAL

Flood layer transparency

What's your risk of flooding?

1. Enter your address, county, city, or FEMA community panel number.
2. Press your location of interest.
3. Press "Print map" or "Download DFIRM" (Digital Flood Insurance Rate Map).

Server using the JavaScript API, including a new interface design. This is due to go live in November.

Small but complex: an atlas for the Belgian coast

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With its 67 km, the Belgian coast seems tiny compared to the neighbouring countries. Its importance and complexity is, however, not less important. Mapping all the uses and users in an atlas proved very helpful, both for the stakeholders and the general public to understand the need for a coordinated management.

The Belgian coastal atlas was first published in book format in 2004, and updated in 2011. The online version was launched in 2005, and revised thoroughly in 2011 and is available in four languages.

The atlas is appreciated as a portal for the Belgian coast and sea, supporting the ICZM process for a wide range of coastal actors, planners and managers. It provides core information through an interactive website, to help local citizens, stakeholders and policy makers make better decisions or gain a better understanding of the coast. Great attention has been given to an attractive lay-out and the ease of navigating through the website. The information is thematically arranged in 13 chapters, taking the land-sea interface into consideration. Each chapter provides static, ready-to-use maps, coastal



Figure 1: The cover of the 2nd edition of the Belgian coastal atlas

graphically on the interactive map, showing differences between the municipalities.

Since the launch of the second on-line atlas in June 2011, the web statistics tool used has changed. Consequently Web statistics before and after June 2011 cannot be compared. The figure shows the trend for the total number of visits and the number of unique visitors since the launch in June 2011 until

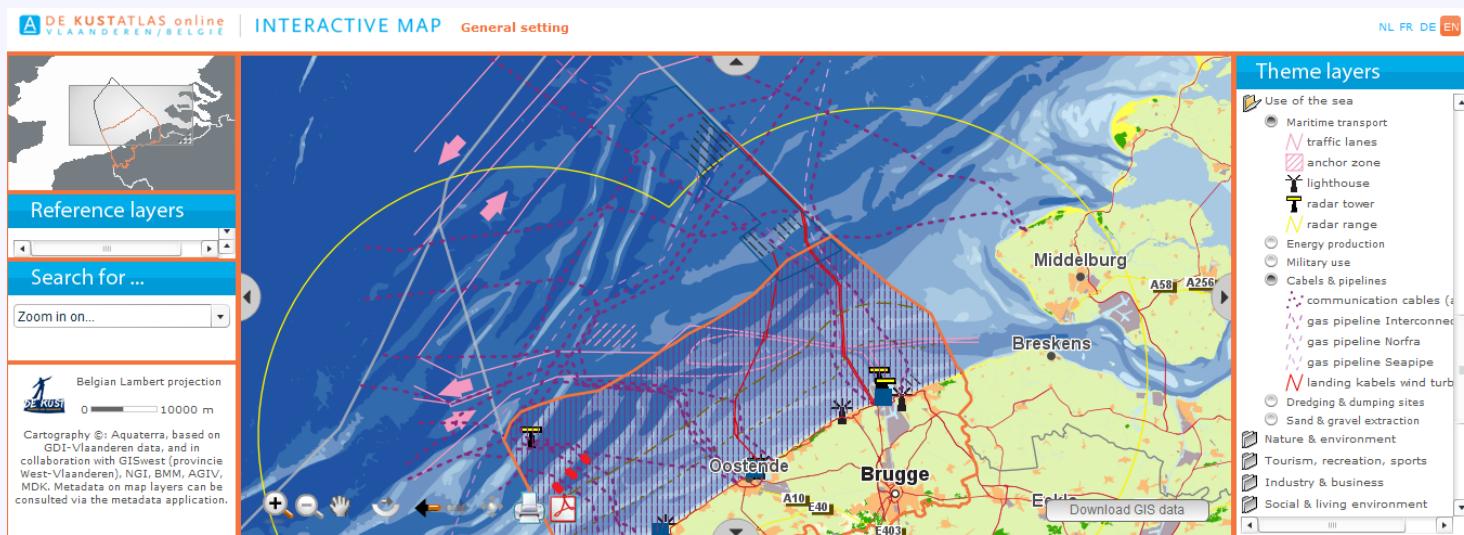


Figure 2: Use of the Sea example from the Belgian Coastal Explorer interactive map

data and an interactive map. All static maps can be downloaded in PDF format; the data in excel format. The interactive map contains tools such as measuring, zooming, and printing. Furthermore, the sustainability indicators are integrated into the Coastal Atlas. Twenty-one indicators are grouped in seven chapters, giving an insight to the state of the coast and the sustainability of its development. Examples of indicators are: the age percentage of residents in the coastal communities, the extent of sea level rise or the amount of waste per household. Whenever possible, the indicators are visualised geo-

graphically on the interactive map, showing differences between the municipalities. Since the launch of the second on-line atlas in June 2011, the web statistics tool used has changed. Consequently Web statistics before and after June 2011 cannot be compared. The figure shows the trend for the total number of visits and the number of unique visitors since the launch in June 2011 until

July 2012. It is clear that promotion and communication activities, such as the launch of the new book (August 2011) or a conference, helps to attract new visitors. When developing a coastal atlas, one should develop a communication plan for both the short and the long term.

In order to be informed on the user profile of the visitors of the Belgian Coastal Explorer website, a poll was launched on the website in September 2011. This enabled the Centre to have a better idea on who visited the web-

site and why. The results of the poll showed that people mainly look for: general info on the coast, the interactive mapping tool and touristic information (= top 3), and that the profile of the visitors is very diverse. Clearly all different sorts of people find their way to the website. The book version of the Coastal Explorer has been officially

launched on 1 September 2012. The launch was embedded in the three day workshop of ICAN, the International Coastal Atlas Network, taking advantage of the international scene of this conference.

It is crucial that the data of the atlas is kept up-to-date. Interaction with data holding and management authorities is very

Invitation to participate a Coastal Tools Survey

Dear colleagues,

You are invited to participate to an international survey looking at the use of different tools in the context of coastal zones management (in the very broad sense). The survey is fairly short (less than 10 minutes) and straightforward and applies to any professional working on coastal/marine environments. It is important for the validity of the study to have a very large number of respondents, so we also encourage you to circulate this email amongst your colleagues and professional networks.

To complete the survey, please go on:

<http://www.surveymonkey.com/s/coastalttools>

Thank you in advance for your participation. Feel free to email us if you have questions,

Rodolphe Devillers (Canada) rdeville@mun.ca
Deborah de Freitas (Australia) debora@uow.edu.au

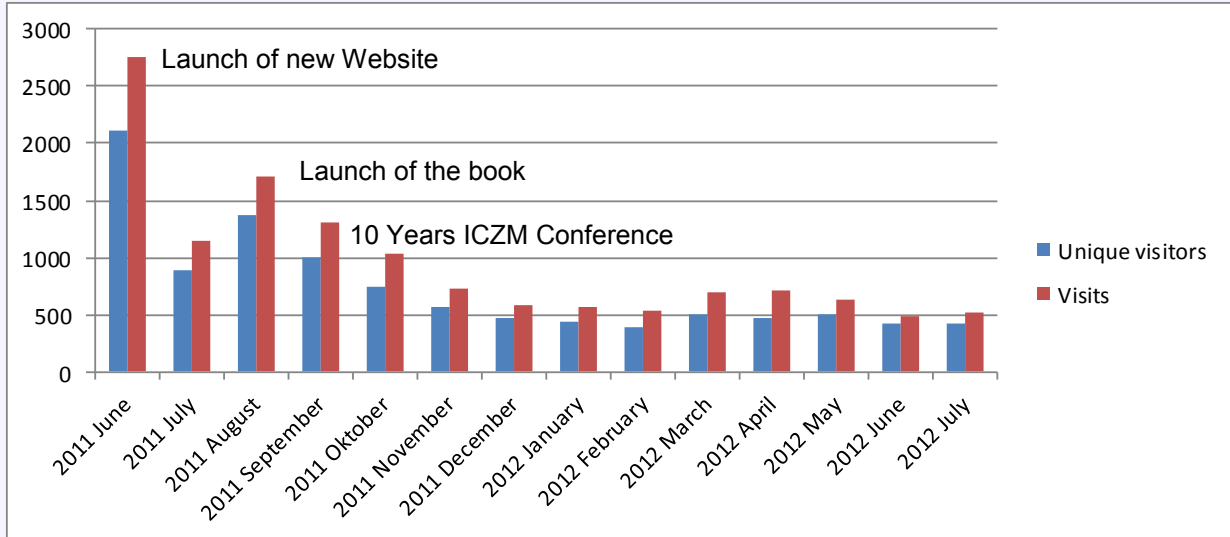


Figure 3: Use statistics of the Belgian Coastal Explorer with labels for events explaining peaks in usage

important in achieving this goal. A working group meets yearly to evaluate the atlas. Receiving feedback from the users is also very valuable to highlight any problems or needs.

DE KUSTATLAS online <http://www.coastalatlas.be/en/>

ICAN accepted as a IODE Pilot Project

Within the framework of the IODE ICAN Pilot Project (ICAN-PP) the following activities and expected outcomes are identified:

- harmonization of methodologies between the African Marine Atlas and Caribbean Marine Atlas projects,
- promoting and developing interoperability and standards based systems among the coastal atlas developer communities,
- sharing of expertise between ICAN (pre-IODE) members/partners and IODE Atlas projects,
- development of terms of reference and further work plan of IODE ICAN Pilot Project,
- creation of an extended and global network of coastal atlas experts,
- further development of an IODE ICAN-PP web site (based on the existing ICAN web site) for communication among project partners, and awareness raising with coastal and marine communities of the value of coastal atlases, and
- training (Ocean Teacher Academy courses in web services are especially relevant).

The above mentioned activities will be carried out between 1 May 2012 and 1 March 2013. The ICAN-PP is a precursor to the establishment of an IODE ICAN Project which will be proposed to the IODE-XXII (March 2013).

ABOUT THE NETWORK



ICAN is an informal group of organizations who have been meeting since the first ICAN workshop held in Cork, Ireland in 2006 to scope and implement data interoperability approaches to coastal web atlases (CWAs). The **mission/strategic aim** of ICAN is to share experiences and to find common solutions to CWA development while ensuring maximum relevance and added value for the end users. Operational interoperability at the global-level is the long term vision. ICAN strives to increase awareness among strategic users like policy makers and resource managers of the opportunities that exist for increased coastal and marine data sharing. ICAN seeks to forge international

collaborations of value, optimizing regional governance in coastal zone management. A major goal is to help build a functioning digital atlas of the worldwide coast based on the principle of shared distributed information based on interoperable locally-maintained CWAs as the premier source of spatial information about coastal zones throughout the world. CWAs provide a basis for rationally-informed discussion, debate and negotiation of sustainable management policies for our societies, nations and people throughout the world. CWAs have tremendous potential to be relevant globally and contribute to **global spatial data infrastructures, marine spatial planning** and related projects. **ICAN Co-chairs** are: Dawn Wright, ESRI Chief Scientist (dwright@esri.com) and Ned Dwyer, Coastal and Marine Research Centre, University College Cork, Ireland (n.dwyer@ucc.ie)

A Message from the ICAN Newsletter Editor

Welcome to **ICAN Newsletter No. 2**. Newsletter No. 1 had 17 pages which for an editor is a bit overwhelming but the articles were hopefully of interest to the ICAN community. Thank you to everyone who took the time to contribute to Newsletter No. 1. Newsletter No. 2 is more compact but still I hope of value to the ICAN community. It is especially rewarding to have articles from new members of the network like Scotland's Marine Atlas.

Planning is underway for the 11th symposium for GIS and computer mapping for coastal zone management, **CoastGIS 2013** (18-21 June 2013), which will be held in Victoria, British Columbia, Canada. **ICAN 6** (16-17 June 2013), the 6th international meeting of the International Coastal Atlas Network will be held just prior to the CoastGIS symposium. Holding ICAN 5 in the same week in the same location as CoastGIS 2011 in Ostende, Belgium certainly had benefits for both meetings. **Mark 16 to 21 June 2013 in your calendars** and plan to join us in beautiful British Columbia for two back to back stimulating events.

I have been following the Open Data Movement for some time. I must admit some skepticism if the rhetoric will be matched by action. Notably the Canadian government's commitment with the Open Government Partnership (www.opengovpartnership.org) to an Open Data Directive has not yet seen the light of day. However, I noted in my morning paper that the council in my home municipality of Halifax (Halifax Regional Municipality is its official name but no one outside of Nova Scotia would use it) has approved a pilot open data project for its spatial data.

I would like to write an article in a future issue on Open Data initiatives that are enabling or maybe hindering the development of coastal atlases. I would encourage you to send an e-mail to me at a.sherin@dal.ca informing me of your experiences with Open Data whether you are a data provider or a user.

Thank you to our new Dalhousie University Masters of Marine Management intern, Tamara Wilson for proof reading this issue.

The next ICAN Newsletter will be published in March 2013. **The deadline for submitting an article will be 8 March 2013.** Send your article to a.sherin@dal.ca

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