

**BCMCA Product User Workshop:  
Facilitating the use of the British Columbia Marine Conservation Analysis  
Products**

*Workshop Proceedings Report*

Workshop held at the 2<sup>nd</sup> International Marine Conservation Congress (IMCC2)  
May 15<sup>th</sup>, 2011  
Victoria, BC

Prepared by Tanya Bryan,  
reviewed by BCMCA Project Team participants at the workshop  
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BRITISH COLUMBIA  
MARINE CONSERVATION ANALYSIS

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## 1.0 Introduction

### 1.1 Workshop Overview and Objectives

The BC Marine Conservation Analysis (BCMCA) released an online data repository and an online atlas in April 2011. To engage users of these products, the BCMCA hosted a lunch-time workshop at the 2<sup>nd</sup> International Marine Conservation Congress (IMCC2) in Victoria BC, May 15, 2011. The goals of this workshop were:

- 1) To provide an opportunity for users to share their perspectives on how they have used the BCMCA products;
- 2) To share ideas for improving products and their delivery; and,
- 3) To initiate discussion regarding potential future applications of BCMCA products.

This workshop report documents the discussion in the breakout groups and ideas presented at the beginning of the workshop. Report content is organized according to four themes which were put forward to the breakout groups. The themes were:

1. **Improvements to atlas page design.** Does the facing page get the message across? What's missing, what's crucial?
2. **Improvements to the online data library.** Can you suggest improvements to the structure, function, or content?
3. **Data gaps.** What needs more work as top priority (both human use and ecological datasets)?
4. **Potential applications.** What are some potential applications for these products?

The anticipated audience for this workshop report are those who are interested in the BCMCA products. The recommendations found in this report will also be used by the BCMCA Project Team to help advise future modifications to the products and to provide input on priorities for the next project phase, which is focused on product delivery and support.

### 1.2 BCMCA Project Background

The BC Marine Conservation Analysis (BCMCA) is a collaborative, BC coast-wide project that is assembling and analysing map-based data that can be used to support marine planning initiatives in BC, without advocating any particular planning outcomes. The overall goal of the BCMCA is to identify marine areas of high conservation value and marine areas important to human use.

There are several marine planning initiatives underway or in preparatory stages in BC. The BCMCA project does not seek to replace these processes. Rather, the BCMCA is developing products that illustrate the spatial distribution of biological, ecological, oceanographic and human use values in BC's marine environment in order to inform discussions and decisions made within these planning initiatives.

Work to date in the BCMCA has focused on two major products:

- 1) An atlas that illustrates known biophysical values and human uses in Canada's Pacific Ocean. This atlas was created from best available existing mapped data. Its purpose is to illustrate aspects of marine biology, ecology, oceanography, and human use relevant to a coast-wide scale.
- 2) A set of results from analyses using the Marxan<sup>1</sup> decision support tool. Results are documented from a range of scenarios, each with different sets of explicit objectives which inform the values put into Marxan parameters. Broadly, the analyses explore a range of "What if...?" scenarios designed to identify areas of high conservation value and areas important to each sector of human use based on data collated for the atlas.

Beginning in the fall of 2006, the BCMCA held a series of workshops in order to assemble the best available biological, ecological, and oceanographic data for the coast. Scientific experts were invited to the workshops to identify these data and make recommendations on the parameters for subsequent Marxan analyses. The BCMCA then obtained and collated 110 of the recommended datasets and prepared the features illustrated in the atlas and used in spatial analyses. Reports summarising expert workshops are available at the BCMCA website ([www.bcmca.ca](http://www.bcmca.ca)). All reports have undergone workshop participants' review before finalisation.

In 2008, the BCMCA identified six sectors of human use (i.e., commercial fisheries, recreational fisheries, ocean energy - wind, wave, tidal, oil, gas - , shipping and transportation, tenures, and recreation and tourism) and began assembling known human use data held by BCMCA project team organisations. Seeking advice and feedback from human use groups about the overall project, the BCMCA met with representative organisations and advisory boards and, based on feedback from these meetings initiated a Human Use Data Working Group. This group, with the cooperation and assistance of many individuals, reviewed approximately 100 human use datasets for accuracy and completeness. In a few cases data were improved by the BCMCA, and in all cases comments from reviewers are included as part of the atlas facing page information.

The online atlas contains 260 pages that show the information compiled by the BCMCA. Biophysical maps illustrate the distributions of marine invertebrate, fish, mammal, plant, and bird species, as well as physical marine and oceanographic features. Human use maps illustrate marine areas important for commercial fishing, recreational fishing, shipping and marine transportation, energy exploration and development, recreation and tourism, and marine tenures such as aquaculture or log handling sites. Some collated datasets are available online for sharing, when permitted by data sharing agreements with data providers. Metadata is available online for all datasets illustrated in atlas pages.

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<sup>1</sup>[www.uq.edu.au/marxan/](http://www.uq.edu.au/marxan/)

## **2.0 BCMCA Product User Workshop**

### **2.1 Workshop Introduction**

The workshop, 'Facilitating the use of the British Columbia Marine Conservation Analysis Products', was held at IMCC2 on May 15, 2011 (see Appendix A for workshop agenda). As part of the IMCC2, the workshop was open to all interested conference attendees, and was advertised via the published IMCC program, notification on the BCMCA website and emails to the BCMCA mailing list. A series of brief presentations opened the workshop. Karin Bodtker, BCMCA Co-chair, provided an overview of the BCMCA project and summarised the responses received from a product user survey (Appendix C), which had been posted online since May 3<sup>rd</sup>. A request for participation in the survey was sent to the BCMCA mailing list, which consists of approximately 270 active members.

The introduction was followed by short presentations from three speakers, representing user groups from different sectors with different needs and experiences, sharing their perspectives. Hussein Alidina, WWF-Canada, highlighted how the BCMCA compilation of data has improved the range as well as the quality of datasets available for the Canadian Pacific. He illustrated these improvements by showcasing a WWF-Canada study on cumulative impacts that used BCMCA compiled data. Charlie Short, BC Government, updated the group on the history of the BC Provincial Government involvement in the BCMCA as well as on possible future applications that the Province sees for BCMCA products. Natalie Ban, James Cook University, presented some ideas about how the BCMCA products could be used for academic research, including the potential use of Marxan with Zones, a decision support tool useful for exploring interactions between conservation and human use values. Tools such as this rely on datasets similar to those which were compiled by and reviewed for the BCMCA.

### **2.2 Breakout Group Discussion Points**

Following the speakers, workshop attendees broke into two groups to discuss the following topics:

1. Improvements to atlas page design. Does the facing page get the message across? What's missing, what's crucial?
2. Improvements to the online data library. Can you suggest improvements to the structure, function, or content?
3. Data gaps. What needs more work as top priority (both human use and ecological datasets)?
4. Potential applications. What are some potential applications for these products?

Each group was asked to discuss all topics if possible and the discussions are summarized by topic.

**Topic 1: Improvements to the atlas and atlas page design**

- Participants in the breakout groups responded positively to the look and feel of the printed atlas, which many had only seen for the first time at the workshop. Many liked having all the content of the data repository on DVD, which is easier to access than downloading all of the content from the online repository.
- Some attendees felt a hard copy atlas made the content more accessible than an online data library. Others suggested that a hard copy atlas, while nice to have, was inefficient and outdated and that potential users should be directed immediately to the most current data and atlas pages (online). There is the possibility that atlas pages will be updated during the product support phase of the BCMCA. Having a hard copy atlas may cause confusion in the future if there are updated atlas pages available in the online data library.
- There was a suggestion that flash drives be used instead of DVDs for future releases of atlas pages.
- Workshop participants suggested that it be listed on atlas page if the datasets are publicly accessible or proprietary (requiring data sharing agreements). This would help manage user expectations by explaining that although information may be published in the atlas, it does not mean it is automatically accessible to end users.

**Topic 2: Improvements to online repository**

- Breakout group participants felt that most data library users would want to access and download the spatial data layers represented in the atlas pages, rather than just the atlas pages or metadata files. Initially there was some concern as to why some data layers were restricted and some people felt that was a shortfall of the project. BCMCA Project Team members answered questions about why some data layers were sharable and others were not. Many data custodians want to be the sole source of their data to provide users with the most up-to-date data, to sign agreements with end users regarding the use of the data, and to be sure those who use these data understand their methods of collection, constraints and caveats.
- Several participants requested that there be a more direct method to know and/or search for which data layers were available for downloading.
- Participants preferred more direct access to contact information for the custodians of individual data layers. Although data sources, custodian names and/or the custodian organization for each feature are listed in a spreadsheet, direct contact information (phone number/email) is not, as this information can get out of date quickly. It was suggested that the BCMCA could specify how to contact the custodians by giving the link

to the government public directories (if applicable) to help those not familiar with contacting government employees.

- Currently it is three 'clicks' to get to the spreadsheet listing custodians and it was suggested that the BCMCA put the link to the spreadsheet directly on the '*data not available*' notation.
- It was suggested that, if possible, periodic updates to the data in the repository would be valuable.
- A participant pointed out that it would be extremely helpful to have the capacity or functionality to search these data spatially to help determine what data are available in a specific location. It was acknowledged that a GIS program running online would be required for this to be possible.
- One attendee noted that it would be helpful to be able to search for datasets relevant to oil spill response.
- A suggestion was made to document the questions raised at this workshop, in a FAQ section related to atlas/library on the BCMCA website.

The BCMCA Project Team noted that product support is funded for the next two years and a component of that work will include securing a longer term repository or home for the BCMCA products.

### **Topic 3: Data gaps**

Many participants found it difficult to comment on data gaps considering the short time they had had with the BCMCA products. They were asked to review content from the DVDs or data library and submit comments to the Project Team if they identified data gaps in the future.

However, there were two suggestions for new atlas pages:

1. maritime zones and jurisdictions (i.e., including internal territorial waters, provincial and federal jurisdiction limits, continental shelf, EEZ boundary)
2. oil spill locations

Specific shortcomings were also identified in seabirds and algae datasets:

#### **Seabirds:**

- With respect primarily to the seabird data, workshop participants expressed concern relating to the age of datasets. The goal of the BCMCA was to assemble the "best available" data and, in some cases, datasets were digitized to make the information

available. The BCMCA has not committed to future updates for any particular datasets. In part, future updates will depend on user demand.

- Participants noted that the at-sea survey data collected by Raincoast Conservation Foundation in survey transects along the BC Coast (2005 – 2008) were not included. (<http://www.raincoast.org/projects/marine-birds/marine-bird-sightings-maps/>) There was a suggestion that the BCMCA update the seabird features with these Raincoast data. One workshop participant disagreed with this suggestion because the data were collected as part of marine mammal surveys rather than specifically for bird surveys. *Note:* These data were not included in BCMCA collated data because they were not available at the time BCMCA was compiling and collating at-sea seabird data. However, BCMCA facing pages do note that these data exist to ensure that readers are aware of the additional data.

#### **Algae:**

- UBC Herbarium data were not included with other data to map kelp features and this was noted by a workshop participant to be a significant data gap. *Note:* In response, the BCMCA noted that the Marine Plants Expert Workshop did not recommend including these data as part of the kelp mapping, but only for mapping rare algae.
- Some of the written content regarding specific rare algae was identified as erroneous just prior to the workshop (e.g. latin names and descriptions). The Project Team acknowledged these errors and made several changes to descriptions online. Individual atlas pages will be updated online as resources and priorities allow.

#### **Specific participant(s) question(s):**

**Question 1:** How does a reader of the atlas know if a data gap is a true absence of the mapped feature or a lack of data collection effort?

**BCMCA Answer 1:** On atlas pages where survey effort data were available, areas surveyed but with no recorded observations are depicted as zero density or zero count.

#### **Topic 4: Potential applications for the products**

Ideas and suggestions from workshop attendees for potential future applications of the BCMCA products included:

1. Many suggestions revolved around integrating the databases, datasets, repositories, and atlases of many agencies into one major integrated database or clearing house.
2. Integrate coastal terrestrial datasets with marine data (e.g., link with HectaresBC ([www.hectaresbc.org](http://www.hectaresbc.org)))



3. Work with academic and government agencies to create a clearing house for people to locate marine and coastal data of interest that are held by a variety of agencies.
4. Integration with Parks Canada's atlas for the Southern Strait of Georgia as well as the Pacific North Coast Integrated Management Area (PNCIMA).
5. Parks Canada acknowledged that BCMCA data will be very useful for conducting representativity analyses (i.e., analyses that summarise how much of each type of habitat or feature is contained in a protected area or proposed protected area compared to how much exists in the larger region). Comprehensive datasets, like this, are useful for Parks Canada to assess how well their National Marine Conservation Areas (NMCA) and NMCA proposals represent the ecosystems of the whole coast.
6. The BCMCA products are an important and useful tool for information delivery to decision makers; the atlas pages make it easy to show them everything that's going on in the marine environment.

### **Added general comments on the BCMCA project and its future direction**

Both discussion groups diverged from the four main topics proposed. Some of these additional points raised were:

- There has been so much work has put into this project and the resulting products that there needs to be some way to have the BCMCA Atlas and online library remain a living document and help it become a one-stop shop for all BC marine data. Discussion on this point did not produce an agreed upon future home or source of sustainable funding. However, the idea of commercializing the products was raised. If these products have value to businesses and marine industries, then they should have an interest in updating and maintaining datasets. Outreach work could be focused on industry.
- One discussion group agreed that they would like to see the collaborative approach continue to support, update and deliver data. It was suggested that greater or more explicit support from senior members of participating government agencies would facilitate the continuation of this type of approach.

### **2.3 Next Phase of the BCMCA Project**

The next phase of the BCMCA has been successfully funded for two years (2011-2013) and will focus on providing support for the products. The overarching goal of this phase is to ensure that integrated marine management and marine spatial planning processes in British Columbia, including the Pacific North Coast Integrated Management Area (PNCIMA) Initiative and West Coast Vancouver Island (West Coast Aquatic Initiative), utilize, understand and have access to the expert-driven and peer-reviewed BCMCA products.

More specifically, the Project Team is working on ensuring that:

1. British Columbia marine planning community and marine user community is aware of and has reliable access to BCMCA products and understands how these products can be used.
2. A record of is kept of additional or revised data products and analysis products needed or requested by users of BCMCA products; with new, refined, improved or extended products to meet these needs, as prioritized by BCMCA Project Team.
3. Relationships are strengthened and the collaboration continues between agencies and organizations represented on the new Project Team, and that relationship building continues with the marine user community.

### 3.0 Appendices

#### Appendix A: Meeting Agenda

- 12:15-12:30 Arrival
- 12:30-12:35 Introduction: **Karin Bodtker (BCMCA co-chair)**
- 12:35-12:40 ENGO Representative: **Hussein Alidina (WWF Canada)**
- 12:40-12:45 Government Representative: **Charlie Short (BC Provincial Government)**
- 12:45-12:50 Academic Representative: **Natalie Ban (James Cook University)**
- 12:50-1:00 Review of Breakout Group Questions: **Karin Bodtker (BCMCA co-chair)**
- 1:00- 1:30 Breakout Groups
- 1:30-1:50 Recap from Breakout Groups
- 1:50-2:00 Wrap up: **Dave Nicolson (BCMCA Project Manager)**

#### Appendix B: Summary of BCMCA data requests received prior to May 2011

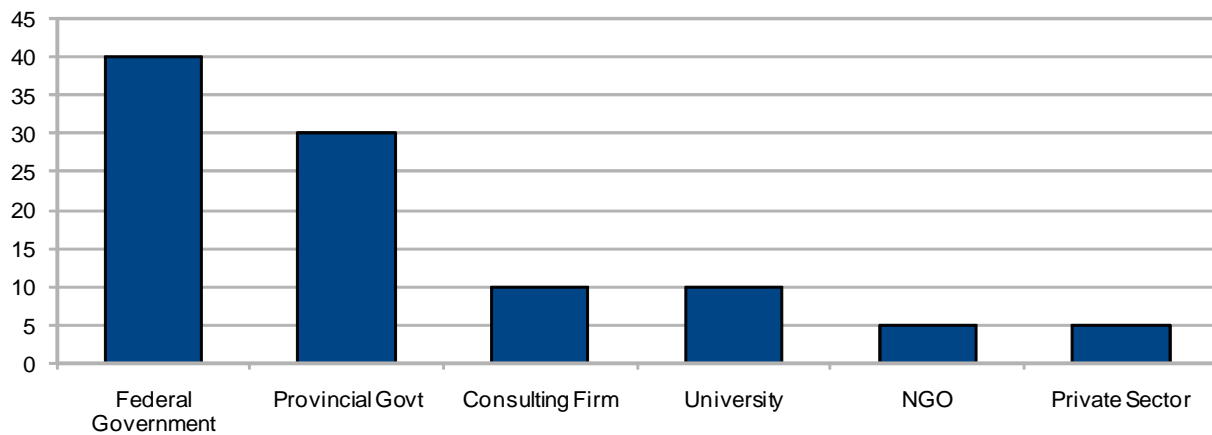
Since January 2009, the BCMCA has received a total of 42 data requests, of which 27 came from outside the BCMCA Project Team. Of those requests, 36 were related to data, three requested information about the data, and three wanted maps. The BCMCA was able to deliver on 33 of those requests. Nine requests were not fulfilled as the data requested were either not sharable or not ready yet.

## Appendix C: Results of BCMCA Product User Survey

In order to provide users of the BCMCA products a venue to submit suggestions and concerns anonymously about the newly released products, a survey was posted online on May 3, 2011. A notification about the survey was sent to the BCMCA distribution list, which consists of approximately 270 active members. Twenty BCMCA users responded to the survey prior to the IMCC Workshop.

### Q1. What type of organization do you represent?

Percentage of Respondents by Sector



### Q2. What is your main application for BCMCA products?

- Planning: marine spatial planning, integrated marine planning, integrated management, oil spill prevention and response planning, MPA planning and analysis, resource management & planning
- Marine classification
- Habitat delineation for species management and species-habitat relationships
- Environmental assessment
- Human use hotspot identification
- Conservation value identification

### Q3. Have you visited our online data library?

61% said yes, 39% said no

Q4. If yes, was it easy to navigate and find what you were looking for?

85% said yes, one person said no

Comments:

- interesting data are not available
- quick look - appears to be promising
- waiting for further development
- could make it easier and faster to get to the project

Q5. Have you downloaded any products?

Five people said yes, 13 people said no

Q6. What did you download?

- atlas pages – 6
- data – 2
- metadata – 2

Q7. Were you satisfied with library performance?

- Yes!
- Very nicely put together
- Waiting for more maps or charts

Q8. Other comments?

- Check the data files. I downloaded DATA and got MARXAN
- Resolve product review requirements with DFO Science
- Did a search for "oil spill" and nothing turned up. Data /maps of this nature would be very useful.
- Greater awareness of product availability
- Linkage with as many other marine spatial data and marine planning websites as possible - I think the product is great, I would just like to see it get more profile.
- Access to more data without restrictions