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INTERRIDGE NEWS



Promoting international cooperation in ridge-crest studies

INTRODUCING THE ENDEAVOUR MARINE PROTECTED AREA - MANAGEMENT SUPPORT SYSTEM PROJECT CHARTER.

by
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The Endeavour Hydrothermal Vent Marine Protected Area (EHV MPA) was designated Canada's first MPA under the Oceans Act in March 2003. It is also the first internationally protected hydrothermal vent site. Canada's second MPA, the Sable Gully in the Maritimes Region, was designated in 2004. More recently, three additional Atlantic Coast MPAs have been designated and five additional MPAs are expected to be designated by completion of phase I of the Oceans Action Plan (Table 1). The Endeavour MPA, along with the Sable Gully MPA, is in the forefront of MPA management in Canada and can serve to inform future Canadian as well as international MPA initiatives.

Fisheries and Oceans Canada has drawn up a project charter for an Endeavour Marine Protected Area - Management Support System. The purpose of this Management Support System is to develop a spatial database and web mapping system for use in the management, monitoring, and reporting of human activities in the Endeavour Hydrothermal Vents Marine Protected Area. All appropriate steps will be taken to seek existing databases that can support the development of the EHV MPA spatial database. The project will be completed by the end of March 2006.

Table 1. Designated and planned Canadian Marine Protected Areas

Canadian Marine Protected Area	Designation date
Endeavour Hydrothermal Vent	March 2003
Sable Gully in Maritimes Region	2004
Eastport, NL	2005
Basin Head, PE	
Gilbert Bay, NL	
Musquash Estuary, NB	2006/07 (estimated)
Tarium Niryutait, NWT	
Bowie Seamount (BC)	
St. Lawrence Estuary, PQ	
Manicouagan Peninsula, PQ	

Background

In order for vessels to access and work in Canadian Marine Protected Areas, the work needs to be consistent with regulations and the management plan for the area. Regulatory requirements include providing information relative to the activities conducted within the MPA for use by the Government of Canada (e.g. preliminary and final cruise reports, provision of data collected). The MPA regulations and management plan of the EHV MPA are intended to first protect the EHV ecosystem

and secondly to provide for responsible research to contribute to the conservation, management, and understanding of the area. To ensure management of the MPA is based on informed decisions, the spatial and temporal extent of human activity within the MPA needs to be documented in a timely manner. This information can then be used to monitor, report on, manage, and ultimately plan for the future management of the Endeavour MPA.

Currently, the primary activities that occur within the Endeavour MPA are research projects, predominantly by foreign research vessels (4-7 per year) and Canadian Coast Guard research vessels (1-2 per year). An underwater fibre optic cabled Canadian observatory network, project NEPTUNE, is to be installed ~2007/08. Coordination of research activities in the Endeavour area is currently conducted through the RIDGE2000 ISS site coordinator. Information relevant to work in the Endeavour area carried out through other funding programs is provided to RIDGE2000 by researchers with an interest in informing others of their work so as to avoid conflict. This RIDGE2000 work provides an opportunity to access data for the development of the Endeavour MPA management support system project.

A problem for the MPA Manager is that information relevant to cruises taking place in the Endeavour MPA are held in disparate locales and in varying formats (paper, electronic, CD, etc.). The MPA Manager therefore cannot view information on current deployments within the area, let alone cumulative deployments/recoveries to understand impacts of activities within and make management decisions for the area. Understanding human impacts within the area is based solely on the number of vessels accessing the area per year. By developing a spatial database, it is envisioned that anthropogenic impacts within the area could be better understood. This understanding is a critical baseline for managing the Endeavour MPA.

Goals

The three major goals of the Endeavour Marine Protected Area Management Support System are:

- 1) to develop a data management tool for the management of the Endeavour MPA. This would include a spatial database that serves as:
 - a tracking system to follow proposed activities from receipt of plan submission, review, consideration for authorization, response to the proponent, licensing, receipt of reports/data, etc.;
 - a data registry (i.e. log of data received through authorization process);
 - in-house information for the MPA Manager during review of a proposed activity (e.g. how does the work relate to existing projects, nature of instruments to be used, proponent history in the area);

- to keep track of point, line, and polygon data related to research activities (e.g. instrument deployment/recovery, ROV trackline, cable installations, research study areas).

2) to develop and deploy an Internet based web mapping application that displays temporal and spatial elements of cruise plans, and disseminates and/or provides a data entry capability to populate the spatial database.

3) to develop a bathymetric dataset derived from multibeam data.

In addition to having the ability to flag potential conflicts among users, the development and maintenance of the spatial database and a web mapping application will:

- provide an effective and efficient tool for Fisheries and Oceans Canada to deliver on their responsibilities to the Canadian government. These include being able to generate regular reports on the activities within the MPA and the effectiveness of MPA management. The management support system would furthermore provide a tool to allow the MPA Manager to make informed decisions. It would also be a critical tool for other people involved in any aspects related to MPA's to engage in MPA management, planning, and development of future MPAs.

- enable consideration of proposed activities to allow responsible research in the MPA consistent with regulations and management objectives. Research is increasingly considered a socio-economic activity as well as a provider of objective information.

- continue to demonstrate Canada's leadership of oceans management - the EHV MPA designation and management is currently an MPA example that can motivate and encourage international efforts to conserve hydrothermal vent sites and other offshore areas as it highlights that responsible cutting edge research can still take place at the EHV MPA.

- make information available to a broader audience.

The MPA Manager will work within existing data submission processes, as appropriate, in order to obtain the necessary data for the Endeavour Marine Protected Area Management Support System.

Potential Issues

As with most projects, there are major issues which may impact the success of this project. The major issues which may impact the success of this project include:

- Data ownership and/or policies
- Project resourcing
- Access to relevant datasets
- Adherence to spatial data sharing standards (relevant datasets)
- Stakeholder cooperation. There has been considerable stakeholder cooperation to date, particularly from the research community.
- Legal considerations (e.g. will research coordination create liability issues? Are there any liability or other legal issues associated with making data/information available to the public via the internet?)

A more detailed project description for the Endeavour Hydrothermal Vents Marine Protected Area Management Support System, or other information relevant to the MPA can be obtained through the MPA Manager, Kevin Conley (see contact information on front page of article).

InterRidge Coordinator's Note

Many areas of current ridge research may be designated as marine protected areas in the not-too-distant future. It is therefore in the interest of all ridge researchers to support and contribute to developing management systems such as the Endeavour Marine Protected Area - Management Support System thereby demonstrating that responsible ridge research can and must continue in these areas.