

Towards a Definition of Marine Ecological Areas in Canada

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INTRODUCTION

Heightened international and national media report of increased exploitation, interference and alteration of marine resources have aroused concern among Canadians that these occurrences may have unforeseen and unpredictable consequences to marine ecosystems. Acid rain, inappropriate use of areas or areas adjacent to them, products from the ocean that have caused sickness in people and an increased pace and diversity of ocean related development and use issues throughout the country have increased concern about marine conservation and protection (Angus Reid, 1990). Frustration about decreased

fish stocks and wildlife; restrictions on shellfish, fish and wildlife consumption; beach closings; pollution from industry and vessels; loss of fish and wildlife habitat; and construction of water and ocean related megaprojects without appropriate environmental assessments have all served to heighten Canadians' awareness and understanding of the marine global situation. However, Canadian protected area agencies, in general, have been reluctant to identify and establish marine ecological areas (MEA's) with the same commitment as is directed towards terrestrial preservation and conservation.

Marine conservation efforts have occurred to varying degrees throughout the last century. Initially traditional peoples and, later, government agencies attempted to conserve a marine resource by regulating activities through the establishment of quotas and permits (Freeman and Carbyn, 1988). This approach was often complemented by the creation of areas where harvesting was limited, adjusted seasonally or prohibited. This second approach to marine conservation is the one most widely used to date in conserving and managing marine resources. Recently marine conservation and protection has evolved into a concept involving the creation of large, multiple use protected areas with varying zones of protection, conservation and use throughout a region (Kelleher and Kenchington, 1987; Agardy and Kenchington, 1987; Foster and LeMay, 1988).

In spite of internationally acknowledged leadership in developing terrestrial protected areas and participation in a wide range of international seminars, resolutions and guideline development workshops for marine protected areas, during the past 25 years, Canada has been slow to implement provincial or territorial and federal marine protected area programs. While reasons for limited slow growth of the Canadian effort are speculative, those offered by a variety of commentators may ring true. It remains unknown which of the following reasons may be most responsible:

1. a lack of resources, and/or research capability
2. the fear of costs related to doing research related to a highly mobile ecosystem
3. limited formal knowledge about marine ecosystems and their dynamics making traditional approaches to resource conservation difficult

4. a concern about the practical consequences and considerations related to marine ecosystems with their downstream effects, access and harvesting patterns that are "too different" from a traditional nonexploitive philosophy of most protected areas
5. a feeling that conservation focused initiatives in a split and layered jurisdictional environment undermine the long standing protective tradition of protected area programmes
6. the lack of a proven model of marine conservation and management
7. or a combination of these issues and/or other concerns

However, the Deputy Director of the Canadian Parks Service in addressing the National Wilderness Caucus of the Canadian Environmental Network noted that the Minister's proposed green paper and commitment to completing the national parks system by the year 2000 did not extend to the national marine park program (Rutherford, 1989).

The question thus arises as to what future or futures are there for marine ecological areas in Canada? What are the institutional, legal and social and economic opportunities and conflicts that will be important to identify to ensure: area protection and conservation, sustainable use of marine resources, coordination roles for federal, provincial/territorial and local governments and shared decision building and decision making responsibilities with various groups and individuals?

METHODS

This research addressed the concept of marine ecological areas in Canada through a focused workshop, background papers and presentations, and a modified delphi process (Brown, 1968). The goals of the project were to develop: a working definition of Canadian marine ecological areas (MEA's), functional principles or criteria for MEA's, guidelines related to management, planning and use, and a suggested implementation strategy for interested groups and organizations.

DISCUSSION

The research indicates that MEAs are a relatively new type of conservation planning and management in Canada with different types of constraints or hindrances to their establishment and planning than terrestrial areas. Some have described the process of area selection, public involvement, collaborative planning and co-management as decision building under uncertainty. Experience and strategies related to the terrestrial situation with their reliance on synoptic or rational planning models do not transfer entirely to the marine environment. Where marine protected areas have been successfully established, implementation and ongoing management have been based on a bottom up approach using available data (i.e. combining limited scientific knowledge with informal environmental knowledge of customary users and indigenous peoples) to produce a concept. Regional strategic assessments (Kelly et al., 1987), collaborative planning and joint decision making with local communities and users and an expanded role of public education were recognized as keys to overcoming the constraints or barriers to program implementation.

The paradigm that seems to be emerging draws equality upon social and natural science information, expanded public forums and continuing dialogue and shared decision making. Most important is the involvement of all user groups in direct decision making related to the planning and management of the area.

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