

The Beaufort Sea Conference 2000 on the Renewable Marine Resources of the Canadian Beaufort Sea

G. BURTON AYLES,¹ ROBERT BELL¹ and HELEN FAST²

The Beaufort Sea Conference 2000, held in Inuvik, Northwest Territories, in September 1999, had three objectives: to review our current understanding of the renewable aquatic resources of the Beaufort Sea; to review the factors that affect those resources; and to develop a vision that will guide management of those resources for the benefit of present and future generations. To achieve these objectives, the conference brought together representatives of the full range of groups interested in the renewable resources of the Beaufort Sea. These included hunters and fishers, other resource users, scientists, government managers, educators, students, and the public. The conference was structured to encourage interaction between participants so that they could jointly discuss opportunities for the future.

The conference was organized around four themes: (1) co-management of renewable resources in the Canadian Beaufort Sea region; (2) local, national, and international impacts on renewable resource use; (3) new technologies for renewable resource management; and 4) ocean management mechanisms for the Canadian Beaufort Sea region. This special issue of the journal *Arctic* presents the formal scientific papers on each resource species or group and the presentation by Inuvialuit elder Billy Day. The paragraphs below summarize the conference discussions under the four themes, as well as the discussions of the youth delegation.

The Canadian Beaufort Sea region pioneered and put into practice the theory of co-management in the Canadian Arctic, beginning with the signing of the Inuvialuit Final Agreement in 1984 and the Gwich'in Final Agreement eight years later. Workshop discussions considering the role of co-management of renewable resources in this region focused on the following challenges for the future:

- *Community engagement*: the need to engage all aspects of a community and multiple interests in new and greater forms of participation in wildlife management and research.
- *Youth and elders*: the recognition that effective co-management rests on the wisdom and experience of elders and must build on the ideas of youth. The participation of both groups must be enhanced.
- *Communication*: the recognition that successful collaboration depends upon successful communication,

and that special efforts must be made to communicate the intent, conduct, and findings of research programs to communities in the region.

- *Good governance*: the recognition that the capacity and effectiveness of co-management agencies depend on good governance. For co-management, good governance must include accountability to appointing parties, consensus-based decision making, well-considered appointments to management bodies, and effective communication among all parties.
- *Research*: recognition that research can benefit from a close association with co-management organizations, since they promote collaboration and cooperation between governments, agencies, and communities, even across jurisdictions.
- *Traditional ecological knowledge*: recognition that co-management agencies can do much to foster the incorporation of traditional ecological knowledge (TEK) in research programs and in resource management decision making; and
- *Chaos and innovation*: Co-management organizations in the Arctic were intended as a new approach to thinking about and accomplishing wildlife and environmental management. If some form of chaos is inherent in such arrangements, it should be valued and respected, for within that chaos lie the seeds for future innovation.

The workshop that discussed local, national, and international impacts on renewable resource use identified the major potential and actual impacts of human activities on the wildlife of the Canadian Beaufort Sea region. Participants considered the continued use of wildlife resources and the steps that could be taken to minimize impacts on wildlife. They then discussed what could be done collectively, from local, national, and international perspectives, to influence activities that negatively affect the resources. Most felt that the existing environmental impact assessment processes for the current level of hydrocarbon and tourism activities could be addressed directly at local and regional levels. Conversely, there was recognition that major new hydrocarbon development could overwhelm the existing regulatory/environmental impact assessment process.

¹ Fisheries Joint Management Committee, Box 2120, Inuvik, Northwest Territories X0E 0T0, Canada

² Department of Fisheries and Oceans, Central and Arctic Region, 501 University Crescent, Winnipeg, Manitoba R3T 2N6, Canada

Identifying data gaps and initiating requisite studies were proposed as actions that needed to be taken immediately. With respect to concerns arising from national or global activities, attention focused on potential climate change, the influence of animal rights groups on resource harvesting, and the long-range transport of contaminants into the Arctic. Identified actions that could be taken by the people in the region included taking steps to make outsiders more fully aware of the reality of the natural and nutritional dependence of Arctic peoples on these resources. This will require a concerted effort from both users and local managers of the resources. Government will need to raise awareness and educate people at national and international levels to achieve the necessary international cooperation for corrective action.

The goals of the new technologies and renewable resource management session were to review new technologies presently in use, assess their effects on resource management, and provide recommendations on their appropriate use in the future. Technologies considered included remote sensing, and acoustic techniques for tracking animals and recording animal activity (bathymetry, acoustic tracking etc.); chemical and genetic technologies; other oceanographic technologies; information technologies; and traditional ecological knowledge (considered to be a new technology for many biologists). The general conclusions of this session were that these technologies have provided new and useful information for resource use and management. For example, they have altered fishing and whaling practices. Nonetheless, co-management remains the basis for management decision making, and communication is essential to ensure that communities are comfortable with the information received using the new technologies. The main proposals put forward by this group included ensuring that the new technologies address community needs; involving the communities, including elders and youth, in the design, scope, and approach of the studies; and improving the integration of TEK with the scientific information.

A major concern of community members was the potential for harassment, injury, and death of animals during tagging programs. They emphasized that “humane treatment” is not necessarily the same as treating animals with respect. The specific proposals from the session were that animals be handled appropriately and always treated with respect, that local people familiar with the animals be involved when tagging or handling animals, and that studies be coordinated to minimize the disturbance of animals and maximize the use of data.

The session addressing ocean-management mechanisms for the Canadian Beaufort Sea region considered the meaning of “management of marine systems” for participants. Members also prioritized concerns and made suggestions for improving marine management planning in the region. The management of marine systems meant several different things to conference participants, but the words of an Inuvialuit elder summed it up for many: “It means looking after animals for the future and passing on the ability to

harvest animals to a younger generation” (V. Allen, pers. comm. 1999). Others focused on specific elements, including habitat identification and protection; scientific and traditional knowledge; controlling human activities; and community involvement, cooperation, and consultation.

Concerns raised were both global and regional or local. Local concerns included garbage and local sewage disposal, but the effects of climate change and long-range transport of contaminants in the region were also explored. People from the Mackenzie Delta were particularly concerned about the potential impacts of hydrocarbon exploration and development. Other concerns were raised about administrative or institutional aspects of ocean management systems for the region, including lack of commitment, shortage of funds, and inadequate knowledge of land-claim agreements. An Inuvialuit elder was concerned about international influences on the ability of the people of the Canadian Beaufort Sea to manage and use marine resources, particularly whales (B. Day, pers. comm. 1999). Key suggestions for ensuring a successful marine management plan included the following. There must be a clear need for a management plan. The plan must meet community needs and have community acceptance. All affected parties must agree and reach consensus at each step in the process. The plan must have well-defined and agreed-upon goals, which in turn must be realistic and achievable. Roles and responsibilities must be clear, and local institutions must be involved. The management plan must be built on existing frameworks. It must be built on sound science and traditional knowledge, yet be as simple and uncomplicated as possible. And finally, the plan will be subject to change, so it must be responsive to changing circumstances.

The youth delegation delivered its report to the concluding session of the conference. Participants expressed a desire to be involved in ensuring that the environment remains healthy for their children and discussed ideas for helping to preserve natural resources for the future. The potential for contamination of traditional foods from distant sources and the possible loss of the animals from overharvest, or other factors, concerned them. Youth felt that they needed to be more involved in co-management processes, both to provide their input into decisions that would ultimately affect them and as a means to learn more about the governance process, so they would be better prepared to participate when they had more responsibilities. They identified specific organizations in which they felt their input would be important. They commented that youth involvement in experiences such as living off the land, hunting, trapping, and fishing were positive ways to enhance youth participation in future resource management. They called on community agencies and educational institutions to support youth participation in the management of natural resources by providing employment opportunities. Finally, they acknowledged that the support of parents and elders was essential to maximize the participation of youth, and they expressed their gratitude to their elders for sharing their land values with them.

Closing comments highlighted the successful track record of co-management in the Canadian Beaufort Sea region, first with the Inuvialuit and more recently with the Gwich'in, and also considered what lies ahead in the immediate future for the region: hydrocarbon development; growing tourism, particularly eco-tourism; increased use of communication technologies; and continued environmental problems arising from the industrialized south. Responding effectively to these changes will depend on taking many of the positive actions identified during workshop discussions. These include (1) planning and taking control locally; (2) using both scientific and traditional knowledge for decision making; (3) collaborating in the sharing of information; (4) creating more partnerships; (5) communicating in plain language across cultures and scientific disciplines; (6) creating more opportunities for interdisciplinary cooperation; and (7) creating more opportunities for elders and youth to come together with scientists and resource users to discuss and decide on issues of importance.

ACKNOWLEDGEMENTS

The authors and the conference organizers would like to thank the major sponsors of the conference, the Canada/Inuvialuit Fisheries Joint Management Committee and the Department of Fisheries and Oceans, and their staff members who participated in the conference and its organization. They would also like to thank the Inuvialuit Joint Secretariat and its staff for conference arrangements, as well as the authors of the special resource papers and the synthesizers of the theme sessions for their work before, during, and after the workshops. The organizers would especially like to thank the more than 140 hunters and fishers, other resource users, youth, elders, scientists, government managers, resource co-managers, and educators who participated in the conference and contributed to the conference outcomes.

REFERENCES

BEAUFORT SEA 2000. 1999. Beaufort Sea 2000: Renewable resources for our children. Conference summary report, 15–18 September 1999, Inuvik, NT. Available from Fisheries Joint Management Committee, Inuvialuit Joint Secretariat, P.O. Box 2120, Inuvik, Northwest Territories X0E 0T0, Canada.