Human Dimensions of Biodiversity Conservation

Sustainable forest management requires the incorporation of multiple forest benefits into planning and management decisions. In order to achieve this it is necessary to have an understanding and assessment of multiple benefits and the impacts of policy and management actions on these benefits. Biodiversity, wilderness, recreation, and community and economic stability are some of the benefits associated with the Foothills Model Forest (FMF). Previous research in the FMF has focused on use values such as recreation and industrial activity. The FMF, however, provides other non-use benefits to society, such as biodiversity.

Following the strategy of the natural sciences, grizzly bears will be used as indicators of biodiversity and ecosystem health. Managing for a sustainable bear population may require society to make choices between preservation, industrial use of the forest (e.g., forestry and oil and gas development), and non-timber uses of the forest (e.g., recreational access to wilderness). Thus, grizzly bear conservation is a complex and, potentially, contentious issue for the model forest. Information on the public's understanding and acceptance of possible trade-offs is currently lacking from grizzly bear and biodiversity-related research in the FMF. This project will help bridge the gap between what is needed ecologically to achieve grizzly bear conservation and what is socially acceptable. In other words, the natural sciences will inform natural resource managers and policy makers on the ecological conditions necessary for conservation and the social sciences will inform them on what is acceptable to the public. This project will draw upon the biological and ecological research conducted on grizzly bears for the FMF and incorporate these findings into an assessment of socially acceptable trade-offs for grizzly bear conservation.

Study Objectives:

1. To determine attitudes, knowledge, and preferences of the public regarding grizzly bear conservation.
2. To examine trade-offs associated with grizzly bear conservation among the public.
3. To determine socially acceptable management options for grizzly bear conservation.
4. To examine the factors influencing people's choices related to grizzly bear conservation.

Progress

Providing effective public input to management decisions requires an informed public. However, our research on biodiversity in British Columbia, Ontario, and Alberta suggests that the public is not well informed about biodiversity and natural resource management issues. Therefore, traditional survey research, which involves a one-way process of collecting data and provides limited information to respondents on the topic of interest, might not be effective in this study. The possibility of employing a relatively new method of data collection (deliberative polling) is being explored. The use of deliberative polling involves providing the public with information, facilitating deliberation of the issues, and assessing the influence of these processes on attitudes, knowledge, and trade-offs. Deliberative polling has proven useful in contentious policy issues (such as aboriginal reconciliation) but to our knowledge has not been applied to natural resource management.

Literature reviews on deliberative polling, and social science aspects of biodiversity and carnivore conservation have been conducted. Preliminary attitudinal and knowledge measures have been developed. A pilot test of the deliberative polling technique will be conducted in February and will provide the basis for assessing the feasibility of using this technique.

For more information on this or other Social Science Program Quicknotes, please contact: Dr. Bonnie McFarlane, Tel.: (780) 435-7383, Email: bmcfarla@nrcan.gc.ca, or visit  www.fmf.ab.ca