

INTRODUCTION

The *Natural History of Nova Scotia* was originally developed as a partnership between the Nova Scotia Departments of Lands and Forests (now Natural Resources) and Education as a basis for environmental planning and education. The particular agencies involved—the Parks and Recreation Division and the Nova Scotia Museum—worked with Maritime Resource Management Services (now the Nova Scotia Geomatics Centre) to produce the first edition in 1984¹. Only 500 copies of this edition were printed, and following essential distribution to government agencies, public and institutional libraries and schools, few copies were available for general use. The process used to prepare the first edition was published formally,² and summaries of the information were made more widely available^{3,4}. The document was reprinted in 1989 with a few minor changes to meet an increasing demand for broader application than had been originally anticipated.

At the same time, it was recommended by an interdepartmental committee that a revision and update of the *Natural History of Nova Scotia* be carried out in conjunction with development of systems plans for provincial parks and protected natural areas in Nova Scotia⁵. Systems planning by both the Parks and Recreation Division and the Nova Scotia Museum has been described elsewhere^{6,7,8}. The proposed systems plan for Provincial Parks and Protected Areas was made public in 1994⁹. The revision of the *Natural History of Nova Scotia* was carried out by the Nova Scotia Museum with considerable assistance from many agencies and individuals and with financial assistance from the Canada/Nova Scotia Cooperation Agreement on Sustainable Economic Development.

WHAT IS THE NATURAL HISTORY OF NOVA SCOTIA?

The term natural history has been used for a long time by researchers, educators and field naturalists to describe their wide range of specialized interests and activities in the context of the natural world in general. Many of these naturalists were, and are, true ecologists, and so the *Natural History of Nova Scotia* takes an ecological or naturalist's approach to understanding our environment. This is consistent with

modern thinking about landscape ecology and the principles of sustainable development.

The idea of natural history regions, first developed in the 19th-century descriptive regional geographies of western Europe, was revitalized by parks planners in North America in the 1970s. The term 'natural history theme regions' was introduced to parks and outdoor recreation planning in 1976 through a consultant's report that suggested the division of Nova Scotia into a number of regions¹⁰. Each region would have a distinctive character and could therefore be said to be the expression of one or more natural history themes.

The theme region approach emphasizes those aspects of an area's natural history that are representative rather than rare. It focuses on processes and interrelationships—how a landscape develops or why a particular environment supports a particular assemblage of species. In the phrase that has come to be the key test of relevance, theme regions are concerned with the "common and conspicuous."

A considerable body of knowledge has been gained concerning Nova Scotia's natural history, and this has grown greatly since publication of the first edition. Some of the knowledge was obtained through pioneering scientific field investigations by persons such as Dawson, Fernow and Goldthwait, whose work is still relevant today. A multitude of academic studies from universities and, more recently, government-sponsored research have added considerably to this body of knowledge. Much of the information on the offshore that has been used in the description of the marine Region 900 comes from industry working with government and academic institutions. A growing body of knowledge is also coming from a new generation of field naturalists carrying out detailed studies in the context of a broad interest in nature.

The three parts of this reference manual describe Nova Scotia's natural history from three perspectives: the natural or theme regions, the elements of the natural environment or topics and the various habitats that provide a home for the wide diversity of species that occurs. The *Natural History of Nova Scotia* is intended to provide a framework in which the significant natural history resources of the province can be understood, managed and interpreted.

The Revision Process

The revision process got under way in the spring of 1992 when funds for the work became available. For the first part, a team of researchers undertook the process of reviewing the contents and providing updates where necessary. One-day workshops on geology, freshwaters and cultural landscapes were held with users and special-interest groups. Many specialists provided valuable resource materials and consultations, and a draft of the main body of new text was circulated for review. As a result, most sections of the document were updated to some extent. Some sections were completely rewritten and some new sections were added. Of particular importance was the inclusion of cultural environment information in all parts of the document in order to provide a description of the modern landscape, which is heavily modified by human activity. Equally important was the expansion of the information about ocean processes and life as a basis for the description of the extensive marine area, Region 900, which provides traditional resources for the people of Nova Scotia¹¹. The cultural information included in the document is only that which is essential to the description and understanding of the contemporary landscape. It deals particularly with patterns of resource use and does not attempt to be a comprehensive "history." Summaries of the history and patterns of land use have been provided elsewhere^{4,12}, but a comprehensive review of the cultural history of Nova Scotia in relation to the use of land and resources is still wanting. In such a work, full attention should be given to tradition and so-called anecdotal information: a different approach to the present work, which depends largely on published information.

Future Development

Despite the vast amount of information currently available, there remain many gaps in our knowledge about the origins and functioning of the Nova Scotia landscape. More people are coming into contact with nature through their work and recreation, and these experiences progressively add to our knowledge. Recreational wildlife activities through naturalists' pursuits, eco-tourism, whale watching, bird watching, hiking and camping are examples. Environmental impact assessments of development proposals and broader-based approaches to natural resource management require easy access to existing information, while at the same time themselves generate new information that should be made generally available. The *Natural History of Nova Scotia*

provides a geographic context for the management and understanding of information drawn from a wide variety of sources and applied to a wide variety of functions. To achieve this objective it is essential that future development be in the form of a geographic information system with the Topic information expressed as attributes of the mapable components: Regions, Districts, Units and Habitats.

Applications

In addition to the continuing uses of this publication for parks and natural areas planning, management and interpretation, a wider range of applications has developed. This includes general and specific land-use planning for municipalities, small and large scale development project planning, assessment and evaluation, eco-tourism and other recreational planning and programs in environmental education. The document gives balanced information about the land and sea and thus has important applications to the coastal zone. There are direct applications to initiatives such as Coastal 2000 and the Gulf of Maine Action Plan, particularly with regard to public information in a general sense and for specific sites or issues.

The *Natural History of Nova Scotia* provides an interpretation of scientific information, but is not, in itself, intended to be a popular publication. To use it requires a basic level of knowledge and some effort on the part of the reader. There is some repetition in the text in order to assist with the type of cross-referencing needed to achieve a broad understanding of the subject. A knowledge of the interrelationships of nature and human activity in the environment is essential to the objectives of sustainable economic development.

The text, therefore, provides access to specialized subjects and can be the basis for popularizing the information through books, guides and other media. Books about the landscape similar to those produced in other provinces and countries^{13,14,15} are possible projects that should be considered. There are also direct applications to on-site interpretation at parks and museums throughout the province that can make natural history information accessible to the general public.



References

- 1 Simmons, M., D.S. Davis, L. Griffiths and A. Muecke (1984) *Natural History of Nova Scotia*. 2 vols. Province of Nova Scotia, Halifax.
- 2 Davis, D.S. and D. Smith (1987) "Analyzing Nova Scotia's Natural History: Production of a Resource Book for Land Use Planning and Environmental Education." In *Landscape Ecology and Management*, edited by M.R. Moss, 221–9. Polyscience, Montreal.
- 3 Davis, D.S. (1987) *Natural History Map of Nova Scotia*, Nova Scotia Museum, Halifax. Republished in 1993 as *Nova Scotia Nature Map*. Nova Scotia Department of Supply and Services and Nimbus Publishing, Halifax.
- 4 Nova Scotia Department of Development (1986) *Nova Scotia Resource Atlas*. Province of Nova Scotia.
- 5 Standing Committee on Parks, Heritage Resources and Outdoor Recreation (1989) "Report of the Technical Subcommittee on the Natural History of Nova Scotia." Manuscript.
- 6 LeDuc, J.M. and A.D. Smith (1992) "System Planning for Protection-Oriented Provincial Parks in Nova Scotia." In *Science and the Management of Protected Areas*, edited by J.H.M. Willison, S. Bondrup-Nielsen, C. Drysdale, T.B. Herman, N.W.P. Munro and T.L. Pollock, 139–44. Elsevier, Amsterdam.
- 7 Ogilvie, R. (1992) "Systems Planning for Ecological Sites in Nova Scotia." In *Science and the Management of Protected Areas*, edited by J.H.M. Willison, S. Bondrup-Nielsen, C. Drysdale, T.B. Herman, N.W.P. Munro and T.L. Pollock, 145–51. Elsevier, Amsterdam.
- 8 Lynds, A. and J.M. LeDuc (1993) "Understanding and Protecting Biodiversity at the Landscape Level in Nova Scotia." In *Protecting Our Natural Heritage*, 15–19. Environment Canada, Dartmouth.
- 9 Nova Scotia Department of Natural Resources (1994) *A Proposed Systems Plan for Parks and Protected Areas in Nova Scotia*. Province of Nova Scotia, Halifax.
- 10 Boggs, G.D. (1976) *Nova Scotia Parks and Recreation Plan*. 2 vols. Department of Lands and Forests, Parks and Recreation Division, Halifax.
- 11 Davis, D.S., P. Stewart, R. Loucks and S. Browne (1994) "Development of a Biophysical Classification of Offshore Regions for the Nova Scotia Continental Shelf." In *Coastal Zone Canada '94, Cooperation in the Coastal Zone*, edited by P.G. Wells and P.J. Ricketts, conference proceedings, vol. 5, 2149–57. Coastal Zone Canada Association, Bedford Institute of Oceanography, Dartmouth.
- 12 Dean, W.G., ed. (1987–93) *Historical Atlas of Canada*. University of Toronto Press, Toronto.
- 13 Hardy, W.G. (1967) *Alberta, A Natural History*. M.G. Hurtig, Edmonton.
- 14 Morzer-Bruijns, M.F. and R.J. Benthem, eds. (1979) *De Nederlandse Landschappen*. Spectrum, Utrecht.
- 15 Cronon, W. (1983) *Changes in the Land*. Hill and Wang, New York.