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PACIFIC FOREST RESEARCH CENTRE

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Environment Canada
Canadian Forestry Service

Environnement Canada
Service canadien des forêts

"If we continue tearing away the earth's green cloak at the rate that we have we soon won't have enough trees to provide the oxygen we need to survive and life will disappear from the planet.

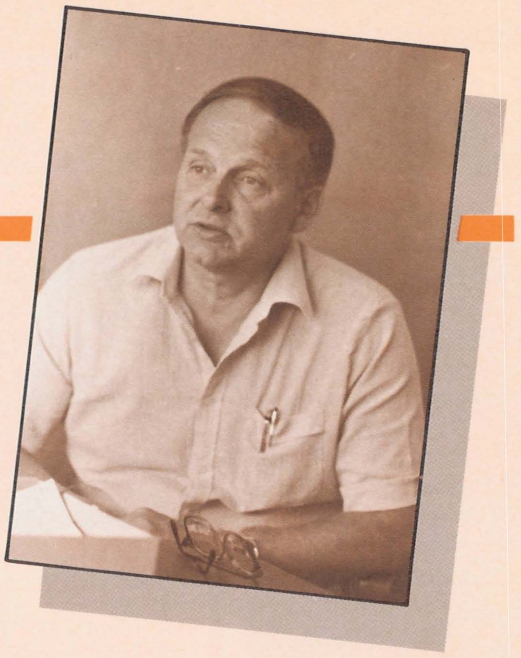
All that's required is some intelligent stewardship.

It's a world-wide responsibility."

Richard St. Barbe Baker

Interview with Bruce Devitt

New group advises on national forest research policies and priorities



The Forest Research Advisory Council of Canada (FRACC) was established in 1983 by the Canadian Forestry Service (CFS) to advise on matters relating to research policies and priorities at a national level. Recommendations arising from the October 1981 Pulp and Paper Research Institute of Canada meeting pointed to two fundamental needs of the industry in relation to forest research. The first was the need to be continuously aware of what forestry research is being done, and in particular to be aware of what results are immediately applicable. The second, was the need to influence the direction and execution of the research, so that results would be appropriate to the industry's operational responsibilities in forest management. Membership on the council is made up of representatives from industry, provincial governments and universities. Looking back on its first year of operation, Chairman Bruce Devitt, Chief Forester of Pacific Forest Products, talked about what FRACC has accomplished, and what it sees as tasks to address in the future.

Who are the other members of the council?

From east to west there are: Bob Mercer, Director of Forest Management, St. John's, Newfoundland; Dave Eldridge, Deputy Minister, Nova Scotia Department of Lands and Forests; Dr. Gordon Baskerville, Dean, Faculty of Forestry, University of New Brunswick, Dave Oxley, Woodlands Manager, J.D. Irving Ltd., St. John, N.B.; Jean-Claude Mercier, Assistant Deputy Minister, Quebec Ministry of Energy and Resources; Jean Marc Comptois, Vice President, James MacLaren Industries, Buckingham, Quebec; Ken Armson, Chief Forester, Ontario Ministry of Natural Resources; Mike Innes, Assistant Director of Forestry and Resource Planning, Abitibi Price Inc., Toronto; Jack Wright, Chief Forester, St. Regis (Alberta) Ltd., Hinton, Alberta; Al Brennan, Assistant Deputy Minister, Alberta Department of Energy & Natural Resources, Edmonton; Dr. Peter Pearse, Faculty of Forests, University of British Columbia, Vancouver; Dr. Jim Dangerfield, Director Research Branch, B.C. Ministry of Forests; and myself. As well, the Canadian Pulp and Paper Association has a member represented on the Council. Ex-officio members are Dr. Carl Winget, Director-General, Research and Technical Services, CFS and Dr. Les Carlson, Director, Forest Research and Development, CFS.

"I think in many ways the status of forest research today is where it is at because the forest constituency hasn't given research the support it needed."

How often do you meet?

We are empowered to meet no less than two times a year, however, we have met three times since we were formed — November, 1983, January and June of 1984. The first two meetings were really exploratory — fact-finding in that we were gathering information on the Canadian Forestry Service in order to give us a better understanding of the organization and what we were supposed to address, given our mandate.

What is your mandate?

The original terms of reference called for the Council to review existing research policies of the CFS and make

recommendations. We were also to look at the broad research priorities and review levels of funding in relation to those priorities. We were also asked to look at the relationship between CFS and other research agencies as well as review and advise on technology transfer mechanisms.

You say your original mandate was the above — has it changed?

At our first two meetings we really struggled with the question of whether or not there was a need for yet another advisory body — should we in fact disband before we got started? There are so many advisory bodies already and many felt that we might be infringing on their rights and mandates. This created a bit of a problem for us in terms of where do we fit in the regional process? We also as a group, recognized right from the start, the need for greater support for forestry research in Canada — would it really be worth our while to meet and put a lot of effort into addressing problems of the CFS if it meant it was giving advice without supportive additional funding.

You must have resolved these conflicts since you are still meeting. Have you come up with new terms of reference?

Yes, we decided to give it a go. However, we did request CFS executive committee approval for some rewritten terms of reference that we suggested. There are seven of them. The first is to review research policy and strategic plans. Its quite simple but probably the most important task we face because we need some goal statements that can be used as touch stones to direct our activities. Our second task will be to examine, in the broad sense, priorities and the specific plans that are presented to us by CFS. We will review the regional distribution and orientation of programs and funding and we will review and advise on the role of the CFS in the context of other related research organizations or agencies. We'll also look at technology transfer activities. We will review and advise on effective means of communication between research and advisory bodies

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regionally, provincially and nationally. And finally, we'll make recommendations on any of the above either upon request or on our own initiative.

What do you see as the priorities of the CFS research program?

I think there are three basic goals as a nation. The first is that we have to raise the productivity of our land base to create an economic supply of wood close to where we have people, markets, sawmills, pulpmills and all the associated infrastructures. There are lots of research activities that flow from this as a national priority. Our second national priority should be to increase our value-added and increase our share of the market. We are not being competitive enough and we are losing out in the market. We are pouring all kinds of money into chasing hi-tech and bi-tech when the main economic generator for the country is going begging. Our third national priority has to be to protect the land and the environment — they are our resources. We feel there just hasn't been enough research linked to fulfilling some of these national needs and concerns.

Why hasn't there been enough research?

The biggest detriment to date has been the lack of full support from the forest community for the need for forest research. I think in many ways the status of forest research today is where it is at because the forest constituency hasn't given research the support it needed. This lack of support has not prompted executive lobbying and the political decisions that follow. This in turn has prevented us from getting sufficient research action, development and application, particularly in the field. There isn't enough bush research taking place. There is no feedback loop that takes the research results back through the process to generate new thrusts and new ideas and further support, lobby and action for future action down the road.

How does FRACC fit into this?

I think one of our main tasks has to be to encourage and create some kind of a Canadian forest research imperative. And this means we aren't going to supplant the role of all the other technical advisory groups that are in existence. In fact we welcome any communication with these groups and we would welcome the opportunity to be supportive in any way. We don't want to build fences around this advisory process. We would like to see it streamlined but at the same time not take away any of the good effort of a lot of dedicated and hard working people. Our door is open and hopefully we will meet or communicate with the groups over time. The Council has a very unique function in advising the Assistant Deputy Minister of the CFS on national research matters — we do not have a technical advisory function. The biggest single contribution we can make to the CFS is to serve as a catalyst to generate a constituency and support for more forest research in Canada.

After one year of operation what recommendations have you made to the CFS?

We have recommended that priority be

given to long term timber supply studies aggregated by provinces as the basis for planning research and management activities. We also see a need for economic research into methodology, model development and system design, similar to the type of research Peter Pearse is conducting in his forest sector analysis project. We have identified an urgent need for cooperative multi-discipline research for the management of forests for the production of timber, associated resources and environmental protection. We would also like to see multi-discipline research encouraged where applicable to assist not only in the development of needed new knowledge but also to upgrade forest sector understanding and technology transfer. We really think emphasis should be placed on developing priorities out of analysis, so that inputs and outputs can be related to stated strategies, goals and objectives. And, as an interim measure, we recommend that the Forest Sector Strategy goals for Canada be used for this purpose.

What's on the agenda for the second year of FRACC?

First, we've decided that because of distance we are unable to meet as often as we would like in order to address these problems, so recently we have sub-divided ourselves into eastern, central and western Canada subcommittees to look at the advisory process. This sub-committee approach will also be useful to look at the national forest research policy now being drafted by the CFS. We will also examine a research consolidation plan and a strategic review plan. Most immediately, we will review the advisory committee structure and processes with a view to streamlining and improving the information flow at all levels. We will also look at who in the forestry constituency we best communicate with to secure the support needed for forestry research and, while we will continue to report periodically and annually with the Assistant Deputy Minister of CFS, perhaps a yearly report to the Minister may be in order. In any case, our goal is to be as supportive and useful as possible. ■

Richard St. Barbe Baker Foundation

On June 4 and 5, 1984, the Canadian Forestry Service co-sponsored a Conference at the University of Saskatchewan, Saskatoon, Saskatchewan, to help launch the Richard St. Barbe Baker Foundation. Conference Chairperson was **F.L.C. Reed**, former Assistant Deputy Minister of the Canadian Forestry Service,

The Foundation has become a registered charitable organization devoted to promoting responsible maintenance and renewal of the world's tree resources. It does not have a membership, but strives to help existing non-governmental organizations by offering them administrative, technical and education assistance related to forestry and trees — focusing on Canada and developing countries.

The Foundation draws its inspiration from the work and principles of the late **Richard St. Barbe Baker** a forester and pioneering environmentalist, with a deep, spiritual vision of an earth made green by tree planting.

For further information on St. Barbe's life and work, write to the Richard St. Barbe Baker Foundation, 54 Summerhill Gardens, Toronto, Ontario M4T 1B4. ■

Forintek Funding Continued

Environment Minister **Charles Caccia** recently announced the federal government's decision to extend its financial support to Forintek Canada Corporation for the next three years. The federal support will consist of $4.6 million for operations in the fiscal year 1984/85, $4.8 million in 1985/86, $5 million 1986/87, and $1.4 million for modernization of equipment during the year 1983/84. This is in keeping with increased funding for forestry research and development outlined in the Throne Speech.

Forintek, with laboratories in Ottawa and Vancouver, was established in 1979 as a non-profit corporation to address specific research and development needs of the wood products industry. Previously, research and development activities had been carried out by the Canadian Forestry Service's forest products laboratories. More than 50 percent of Forintek's annual budget has been provided by the federal government, with the provinces and wood products companies contributing the remainder.

Mr. Caccia said the government's decision to maintain its financial contribution to Forintek was essential to Canada's wood products industry, a major contributor to the economic and regional development of this country. Without Forintek's research program, the industry would have great difficulty in meeting domestic needs and maintaining its competitive position in world markets.

The importance of continued research and development in the forest sector, and specifically in wood products, has been recognized in the Forest Sector Strategy for Canada, published in 1981. It is estimated that innovations in wood utilization and processing can increase the product yield per cubic metre of harvested timber, thereby improving Canada's position in the international marketplace. ■

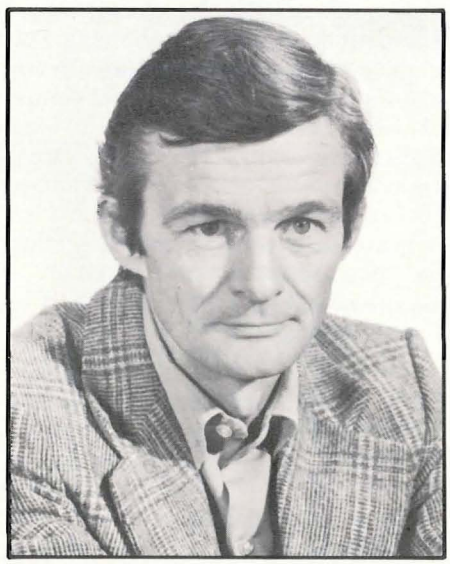
N E W A P P O I N T M E N T S

Ross Macdonald, Regional Director of the Canadian Forestry Service, Pacific and Yukon Region, announces the appointments of the following personnel:

Dr. Douglas S. Lacate has been appointed Program Director, Environmental Forestry, replacing Cliff Brown who has accepted a special assignment as Secretary-General of the 12th Commonwealth Forestry Conference (see page 7). In his new position Dr. Lacate is responsible for managing and directing research into impacts of forestry operations, fire, watershed research, meteorology, environmental impact assessment as well as the forest insect and disease survey activities.

Dr. Lacate began his career with the Canadian Forestry Service in 1956 working on forest land classification throughout eastern Canada, until 1960 and continued this research in British Columbia until 1964. Upon completion of his Ph.D. in 1970 at Cornell in the fields of natural resource management and environmental impact assessment, Dr. Lacate was an Associate Professor at U.B.C. until 1973. He returned to Environment Canada in 1974 as Regional Director of the Lands Directorate, Pacific & Yukon Region and remained in this position until 1984 when the regional Lands office in Vancouver was closed. The regional Lands office contributed to a variety of national and regional priorities ranging from environmental impact assessment, the development of coastal resource folios, the evaluation of land use changes in the Pacific & Yukon Region to the provision of advice and research services on land use planning in estuaries.

Doug Lacate



Mike Meagher

Dr. Mike Meagher has been appointed geneticist in the western white pine improvement program. He will be responsible for determining the genetic nature of resistance mechanisms in white pine relative to the blister rust (*Cronartium ribicola*) and the rusts alternate hosts, the currant and gooseberry (Ribes) species, so that rapid, efficient progress can be made toward producing genetically-resistant seedlings for reforestation of coastal and interior lands. This will entail close cooperation with Dr. Richard Hunt, pathologist, and Dr. Eleanor White, biochemical geneticist, both of PFRC, and with the well-established white pine programs in the United States.

Prior to his appointment to PFRC, Mike was Hemlock Breeder for the B.C. Ministry of Forests for seven years. During that time he co-ordinated the selection and propagation by Ministry and Industry personnel of over 1200 parent trees, many of which are in progeny test plantations or seed orchards. Also, he conducted studies to elucidate the genetic nature of western hemlock. The Hemlock breeder position stemmed from reviews of long-term planting needs conducted while he was Seed Orchard Forester with the Ministry at Duncan for 5 years. Previous employment included lecturing in the Forestry faculties of U.B.C. (1970-71) and Toronto (1963-67) and Forester-in-Training with B.C. Forest Service Reforestation Division (1957-61). Mike is a native of Nelson, B.C. and completed his BSF at UBC in 1957, followed by MScF (Toronto, 1963) and PhD (UBC, 1976). ■

SIX NEW RESEARCH PROJECTS FUNDED UNDER EXTENDED FORESTRY AGREEMENT

An $11 million, one-year extension of the 1979-84 Canada/British Columbia Intensive Forest Management Agreement has provided for funding for six new research projects aimed at resolving backlog problems.

The extension, viewed as a preliminary step toward concluding a longer term and more comprehensive forest renewal agreement, focuses on renewal of backlog not-satisfactorily restocked (NSR) forest on Crown provincial lands, including surveys and prescriptions of NSR and funding of research to refine methods for the establishment of trees to a "free to grow" status.

Environment Canada and the British Columbia Ministry of Forests will each contribute $5.5 million. Over $8 million will be spent on site rehabilitation and planting of NSR and the balance on surveying seedling supply and related forestry research.

The six research projects selected for funding are expected to yield short-term results directly related to resolving NSR problems. They are:

Forest weed control — A serious limitation to the reforestation of NSR lands in B.C. and Canada is the lack of vegetation management prescriptions. The purpose of this research project is to provide funding and resources to a program of forest weed control trials at Carnation Creek, Skeena River and Peace River. This includes the installation of plots at each of the proposed trial sites, the aplication of chemical herbicides, the contracting for a portion of the herbicide residue analyses required for these studies and the evaluation of soil flora and fauna responses to herbicide applications. A comparative evaluation of manual treatment versus plots treated by aerial herbicide application and non-treatment will also be carried out.

Autecology of key seral species — The purpose of this project is to produce a guide to the autecology of key seral species in northern British Columbia which will provide a summary of current information on the distribution, ecological requirements, growth rates of reproduction, competitive effects and responses to silvicultural prescriptions for each species. Key seral species in high priority subzones will be selected and a thorough review of literature and evaluation of existing data will be conducted to determine the available information. A report outlining what is known about the biogeoclimatic and biogeocoenotic distribution, ecological requirements, growth rates, mode of reproduction, competitive effects and response to silvicultural treatments will be prepared.

Prescribed fire technology — The objective of this research project is to evaluate the impact of prescribed fire on site productivity, demonstrate the use of slash/burn technique for NSR conversion and develop site specific stand rehabilitation prescriptions. Four studies will be undertaken: (a) effects of prescribed fire on nutritional status of juvenile coastal plantations (b) feasibility of prescribed fire's role as a treatment in the site rehabilitation of interior NSR lands (3) prescribed fire trials for conversion of red alder coastal stands, and (4) effects of prescribed fire on slash and soils in the Prince Rupert Forest Region.

Field testing of mechanical site preparation equipment — Project staff will complete a mounding machine, designed by the B. C. Ministry of Forests, which will form individual raised planting sites consisting of a double layer of humus capped by not less than 12 cm of mineral soil. Construction of a prototype machine is virtually complete and preliminary trials need to be done to test the functioning of the mounding mechanism. Operational trials will be conducted in the vicinity of Prince George and modifications will be made, with the end product readied to turn over to a manufacturer to bring to the operational design stage and eventual construction.

Control and monitoring of competing vegetation — A monitoring system for operational herbicide treatments will be developed and a series of research and demonstration areas will be established where mechanical, chemical and manual treatments can be compared for the subsequent renewal and management of NSR lands. Four studies will be undertaken: (1) chemical and manual response of established coniferous trees (2) mechanical site preparation management options in NSR areas in the boreal plateau region of B. C. (3) development of a system to monitor operation herbicide applications, and (4) comparison of the effectiveness of manual and chemical treatments for the control of aspen.

Decision aids for backlog reforestation — The objectives of this project are to develop a guide for the determination of planting "windows" for commercial species and to determine optional stocking densities for white spruce stands. Two studies will be undertaken: (1) guidelines for the assessment of soil water and soil temperature regimes to aid site preparation and planting decisions, and (2) to develop first approximation yield tables for white spruce plantation establishment density.

Staff from the Canadian Forestry Service and the B. C. Ministry of Forests as well as other cooperators will work on these projects with a completion date of not later than March 31, 1985 — the expiration date of the extension. As research activities in these six project progress readers of Information Forestry will be kept informed. ■

Environment Canada Funds New Forest Economics Studies at UBC

A national organization for advanced studies in forest economics and policy has been established at the University of British Columbia funded by a $1 million grant from Environment Canada. It will be under the direction of Professor **Peter Pearse** of UBC's Faculty of Forestry.

Dr. Pearse said that Canada's six forestry schools have well-established programs in forestry and wood science, harvesting and management, but the most urgent problems facing the forest industry do not fall within the traditional fields.

"The challenges of our industry are in the economics of producing new crops of timber, product manufacturing, marketing and public policy", Dr. Pearse said. "Nowhere in Canada is there a substantial concentration of teaching and research expertise in these areas. This new organization will correct that".

Pivotal to the new organization is the Forest Sector Analysis Project that was begun at UBC six months ago with support from the Canadian Forestry Service.

The purpose of the project is to explore the problems emerging in Canada's forest sector and the impact of alternative measures that can be taken by the industry and governments. The objective is to reveal what can be done to maintain or improve the competitiveness of Canada's forest industry as the resource base and market conditions change, and to identify new opportunities for industrial development, Dr. Pearse said.

A unique feature of the project is the extensive arrangements Dr. Pearse and his colleagues have made for close collaboration with the forest industry, provincial and forest agencies and researchers involved in related investigations in other countries.

Dr. Pearse conducted the Royal Commission in B.C.'s forest resources which resulted in complete revision of the province's forest legislation in 1978, and in 1982 he completed another major Royal Commission inquiry into the Pacific fisheries.

He was recently named chairman of a three-person advisory committee which will carry out a major study of Canada's water resources for Environment Canada. The water and forest studies are both part-time and together will occupy his full attention, he said. ■

Canada to Host 12th Commonwealth Forestry Conference in Victoria

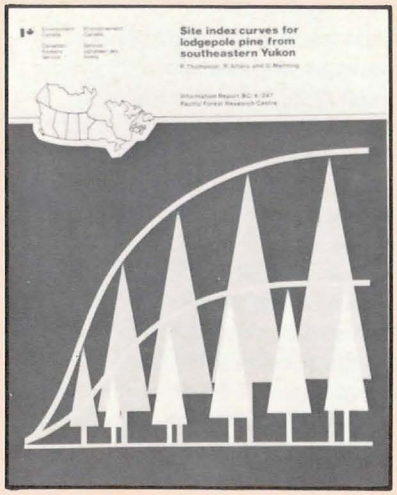
Canada has been selected to host the 12th Commonwealth Forestry Conference to be held September 8-25, 1985, in Victoria, B.C. Some 300 participants from many of the 50 Commonwealth countries are expected to attend.

Cliff Brown, Deputy Director of the Pacific Forest Research Centre has been asked by the Assistant Deputy Minister of the Canadian Forestry Service (CFS), to serve as Secretary-General. In accepting this position Mr. Brown has called upon staff from the B.C. Ministry of Forests as well as the CFS to assist him in ensuring the success of the Conference and the 4-day post-Conference tour.

The 1985 Conference theme will be "Investment in Forestry - the Needs and Opportunities". Discussion will centre around the many social, economic and environmental benefits which flow from investments in forestry and will focus in particular on the necessary strategies to secure the required investment of money, land, labour and scientific knowledge to realize these benefits. Efforts are currently being made to obtain the best possible speakers. Some of those confirmed include **Mr. B. Downey**, Fletcher Challenge, New Zealand; **Mr. J. Spears**, World Bank; **Dr. Peter Pearse**, University of British Columbia; **Mr. T.M. Apsey**, President, B.C. Council of Forest Industries; **F.L.C. Reed**, Weyerhaeuser, Canada and **Dr. G. Baskerville**, University of New Brunswick, Canada.

The **Hon. Donald S. Macdonald**, currently heading the Canadian Royal Commission on the Economy, has agreed to deliver the address on the Theme of the Conference. In accepting the invitation Mr. Macdonald noted that his late father was responsible for the Commonwealth Forestry Conference which took place in Canada in the early 1950's. ■

NEW PUBLICATIONS



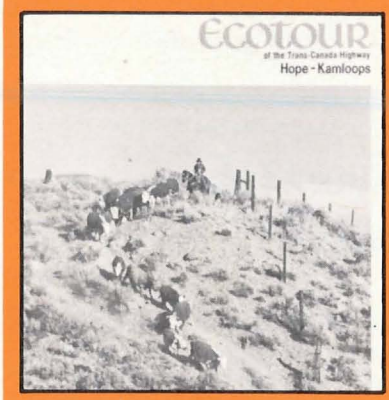
Site index curves for lodgepole pine from southeastern Yukon.

R. Thompson, R. Alfaro and G. Manning

Stem analysis data for 86 destructively sampled lodgepole pine trees from ecoregions 2, 4 and 5 of the Yukon Territory was used to develop a site index equation for the grouped ecoregions.

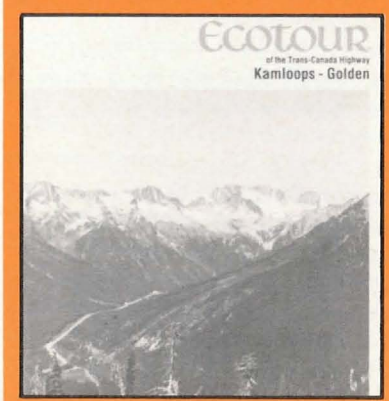
BC-X-247.

Copies of these publications may be obtained by filling out the enclosed card and returning it to the P.F.R.C. Information Office.



Ecotour of the Trans-Canada Highway, Hope to Kamloops

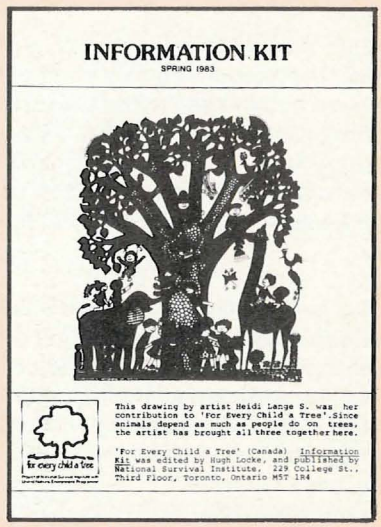
R.G. McMinn



Ecotour of the Trans-Canada Highway, Kamloops to Golden

W. Stanek

These two publications are the latest in a Canadian Forestry Service series of ecologically interpretive booklets designed to assist travellers in enjoying the landscape through which they are travelling. Human as well as natural history is featured in this low-key education effort in environmental awareness. Four years ago the Ecotour covering Victoria to Hope was published and is also still available.



For Every Child a Tree (Canada)

Hugh Locke, editor

This information book is intended to be a resource for learning about trees and forests in Canadian classrooms. It was developed as part of the "For Every Child a Tree" project of the National Survival Institute and its printing was subsidized by the Canadian Forestry Service.

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