

British Columbia



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100 YEARS OF FEDERAL FORESTRY IN BRITISH COLUMBIA

by S.W. Taylor*

The *British North America Act* of 1867 gave provinces the right to dispose of land and timber and so the primary role in forest management in Canada. However, the federal government has long recognized the national importance of forests. Over time it has created a mandate to manage forests on federal lands, develop national and international forest policies, enter into cooperative agreements with provinces to promote economic development and carry out forest research.

**In August 1899, the forerunner of the present Canadian Forest Service, the Dominion Forest Branch, was created in the Department of Interior. This article is abstracted from a report in preparation on federal forestry and forest science in British Columbia by E. Nyland, S. Taylor, T. Trofymow, B. Lawson, A. Van Sickle, M. Meagher and L. Safranyik.*

Recycled paper



The Railway Belt

British Columbia (B.C.) joined Canada in 1871 on the promise of a rail link with the markets of the east. Under the terms of confederation the Dominion of Canada was granted a belt of land 64 km (40 miles) wide along the route from the Rockies to tidewater as compensation for the enormous cost of building a railway through this sea of mountains. In 1884, 4 050 000 hectares of land known as the Railway Belt were transferred to the Dominion. An additional 1 290 000 ha block in the Peace River area was transferred to Canada in 1907 in lieu of alienated and low-value lands in the Railway Belt.

During the late 1800s governments actively promoted settlement in western Canada, and the Timber, Mines and Grazing Branch of the Department of Interior made timber on federal lands available at a nominal cost in the interests of development. Aside from small permits for settlers, timber was sold to sawmills by auction as Timber Berths. The licensees paid an annual rent and a royalty on the timber cut, and the land reverted to the government when logged.

In 1886, Thomas Higginson was appointed as the first Crown Timber Agent in New Westminster to administer logging in the Railway Belt. However, his administration began rather badly. Concern over corruption prompted a Crown Timber Inquiry in 1897, and Higginson was replaced by James Leamy, a Vancouver sawmill operator. An office was opened in Kamloops in 1901 to handle interior operations; it later became the administrative headquarters for the forest reserves in B.C.

Forest Reserves

At the turn of the century, a growing conservation movement in North America led to the beginning of forest services, forest reserves, fire protection, forestry schools and forest research. As early as 1886, four timber reserves were created in the Railway Belt, which are B.C.'s first forest parks. In 1899, the Department of Interior established Canada's first forest service, the Dominion Forestry Branch, to provide fire protection on federal lands in the west and promote planting of shelterbelts on the prairies. The Branch created the first forest reserve in B.C. at Long Lake by departmental order in 1902.

The *Dominion Forest Reserves Act* of 1906 authorized the Branch to create and manage a system of national forests within federal lands. Forest land was reserved to provide watershed protection, recreation and timber for future use – reserved land couldn't be alienated for settlement. Thirteen forest reserves were eventually created within the Railway Belt in B.C. The small forestry staff based in Kamloops surveyed the reserves with the help of students from the new University of Toronto forestry school. They also began yield studies of coastal species in 1910, followed by studies of lodgepole pine taper, thinning and yield in the Kamloops area in the 1920s.

The major effort however, was in fire protection. By 1930 a network of seven lookouts had been constructed in the mountains, linked by 2100 km (1,300 miles) of road and trail, and 4200 km (2,600 miles) of telephone line to the ranger stations in the valleys below. With these facilities and a staff of about 35 fire rangers, the Railway Belt was one of the most heavily protected areas in B.C.

Commission of Conservation

In the same conservation era, Parliament funded the Canadian Commission of Conservation, which began pioneering natural resources surveys in 1909. Its Committee on Forests gathered information from the B.C. Forest Branch, Dominion Forest Branch, and licensees, publishing B.C.'s first forest inventory "The Forests of British Columbia" in 1918. It also carried out special studies on forest regeneration and protection problems and helped promulgate fire prevention regulations for nationally chartered railways. When the Commission was terminated in 1922, its research activities were picked up by the Dominion Forest Branch.

First B.C. Plantations

Following extensive forest depletion in the First World War, the newly established British Forestry Commission asked Canada to provide tree seed for an expanding afforestation program. The job fell to the Dominion Forest Branch staff in B.C. Between 1921 and 1930 they collected and processed 14.5 tonnes (16 tons) of seed, primarily Sitka spruce and Douglas-fir, at an extractory in New Westminster.

Most of the seed was exported to Britain, but some also went to Ireland, Belgium, Spain, New Zealand, Russia, Africa and the United States. This was the beginning of a seed trade that was continued by private concerns for many years. A substantial part of the genetic base of Britain's plantations has come from B.C. seed.

Transfer of Resources

Separate federal and provincial land and timber administrations proved to be inconvenient for the public, and not inconsequentially, a drain on federal coffers. In 1930, the remaining unalienated lands in the Railway Belt and Peace River Block were transferred to B.C. (and other western reserves to the corresponding provinces) and the forestry budget was cut by 85%. A substantive federal role in forest administration in B.C. effectively came to an end.

The most significant legacies of this period are Yoho and Glacier National Parks, which were created from early reserves. The B.C. government also inherited the Timber Berths, one of the forms of "Old Temporary Tenure." Through the 1930s and 1940s the Branch focused on forest research, establishing experimental forests in several provinces and beginning a national forest inventory in cooperation with the provinces.

However, these efforts were severely limited by a shortage of funds and staff during the Great Depression and Second World War. Forest experiment stations were planned for Niskonlith and East Thurlow Island, but failed due to a misunderstanding with the B.C. government over forest licenses. The Vancouver office was closed in 1937.

Western Forest Products Lab

During the First World War, Sitka spruce from B.C. was in demand for aircraft construction. At the request of the Imperial Munitions Board, the Vancouver Forest Products Lab was opened in 1918 to test timber strength. Following the opening of the Panama Canal in 1914 and the end of the war, the B.C. forest industry became increasingly export-oriented.

The Western Forest Products Lab continued to provide information on engineering properties of B.C. tree species to help the forest industry gain access to overseas markets, as well as studies on seasoning and kiln drying problems, utilization and waste, and timber pathology. New laboratory facilities were constructed in 1958 to house an expanding research program, including new studies on plywood, pulping, wood preservation, chemistry, anatomy, engineering physics and entomology in the 1950s and 1960s.

In 1978 the federal government privatized the forest products labs. They were taken over by the non-profit Forintek Canada Corporation, which continues to carry out wood products research for its member companies and agencies.

Forest Biology Laboratories

The federal Department of Agriculture began the first forest insect and disease research and control programs in Canada. Dr. J.M. Swaine was appointed as the first full-time forest entomologist in 1912 and made numerous inspection and collecting trips in the west. The Dominion Forest Laboratory opened in Vernon in 1919 under Ralph Hopping and operated until 1970, carrying out pioneering studies in forest insect biology and bark beetle control programs.

Surveys of insect outbreaks began in the 1930s. As the need for this information grew, a separate Forest Insect Survey was created in 1936. Forest diseases were included in the surveys in 1952. A sub-laboratory for coastal operations opened in Vancouver in 1925 (in conjunction with the forest products lab) and moved to Victoria in 1945. All operations were consolidated in the Victoria lab in 1970. Subsequently, rangers travelled to survey districts throughout B.C. and later to the Yukon.

The first forest disease problem to capture attention in B.C. was white pine blister rust. After it was discovered in Vancouver in 1922, pathologists from the Department of Agriculture studied its spread through southern B.C. and experimented with control measures. A permanent forest disease lab was opened in Victoria in 1940. With the outbreak of the Second World War and increased demand for Sitka spruce, research focussed on stem decay in spruce and other species. The Victoria lab expanded its scope in the 1950s to examine other pathogens as well as forest insects.

Following the war, Canada enjoyed unprecedented economic growth and prosperity. Unparalleled government revenues, liberal economic policies and optimism regarding the benefits of science and technology prevailed. In 1949, the *Canada Forestry Act* was proclaimed and gave the federal government authority to expand its role in forest research and economic development. Ultimately, the Dominion Forest Branch and the Forest Biology Division of the Department of Agriculture were amalgamated in 1960 and a regional structure was established across Canada.

As the B.C. forest industry grew, many new problems were recognized and the scope of research was expanded beyond forest insects and disease. A new laboratory, the Pacific Forest Research Centre, was constructed in Victoria in 1965 to house the growing research program.

During the 1970s and 1980s new investigations began in nursery and silviculture practices, forest biology, effects of forest practises on soils and hydrology, fire danger rating and prescribed burning, remote sensing, land classification, biological control of pests and several other fields. Globally, great advances were made in science, biotechnology and information technology. In B.C., foresters began to recognize the need to put forest management on a stronger ecological basis. These new understandings, perspectives and technologies are incorporated in much of the research of this period.

Cooperative Agreements

Governments began to use forestry to provide employment during the Great Depression, when unemployment in Canada approached 25%. The purpose of the first programs was to contain civil unrest; later programs emphasized training. The west was hit hard and as many homeless men drifted to Vancouver, the B.C. government opened relief camps in 1931 to get them off the streets. The federal Department of Labour took over the camps in 1933, placing them under military authority and slashing wages. By 1934 over 7000 men were in relief camps in B.C. Repressive conditions prompted the On-To-Ottawa Trek in 1935, and the camps were closed later that year.

The B.C. government then began the Young Men's Forestry Training Plan (YMFTP) in 1935 and the Forest Development Project in 1937. From 1937 the federal government shared the costs of these projects, expanded the YMFTP across Canada, and followed with its own National Forestry Program in 1939. The combined training programs employed about 2000 young men in B.C. but were discontinued in 1940 due to the outbreak of war. After the introduction of conscription in 1942, up to 1000 Alternative Service Workers, or conscientious objectors, worked on fire suppression, beetle control and tree planting projects in B.C. until 1944.

During the 1950s and 1960s cooperative agreements with the provinces were expanded under the *Canada Forestry Act* to support a growing forest industry. Funding was provided for road development, forest inventory and forest protection measures until 1969.

Cooperative agreements with the Province of B.C. were resumed in the recession of the early 1980s to provide employment benefits, and expanded during 1985 - 1995 to address backlog reforestation, intensive management and research. A district office funded from these programs was opened in Prince George in 1989. Under the 1991 - 1996 Greenplan, funds were also made available for model forests, including two in B.C.

National and International Issues

During the 1990s environmental issues captured public attention. As forest practices came under increasing international scrutiny, Canada signed international conventions on biodiversity and greenhouse gas emissions. However, a conservative economic climate prevailed in most industrialized countries, with debt reduction a growing concern. In the Canadian Forestry Service, a 30% budget cut in 1996 resulted in closure of the Petawawa National Forestry Institute, Forest Pest Management Institute and several regional facilities, including the Prince George District Office in B.C.

Operational services such as the Forest Insect and Disease Survey were discontinued, as was funding for federal-provincial agreements. The research program was reduced and restructured into ten national networks: effects of forestry practices, fire management, forest biodiversity, forest ecosystem processes, forest health, landscape management, pest management methods, socio-economic research, tree biotechnology and advanced genetics and climate change. Five research centres in Victoria, Edmonton, Sault Ste. Marie, Quebec City and Fredericton have been maintained.

The fortunes of the Canadian Forest Service have waxed and waned over the past century in over 13 different departments under 16 different governments, and its role has changed with the times. However the staff have persevered and made important contributions to forestry and forest science in B.C.



Some events in federal forestry in B.C.

by S.W. Taylor

- 1867 *British North America Act* gives provinces the right to dispose of lands and timber
- 1871 Confederation of British Columbia with Canada
- 1880 Timber, Mines, and Grazing Branch formed in Department of Interior
- 1884 Railway Belt transferred to the Dominion of Canada
- 1885 Last spike at Craigellachie – completion of the Canadian Pacific Railway (CPR)
- 1886 First Crown Timber Agent appointed in New Westminster. First timber reserves (forest parks) established along CPR
- 1897 Inquiry into Crown Timber disposition
- 1899 Dominion Forestry Branch formed in Department of Interior

- 1901 Crown timber office opened in Kamloops. First fire rangers appointed
- 1902 Long Lake Forest Reserve (B.C.'s first forest reserve) created
- 1906 *Dominion Forest Reserves Act*. Six forest reserves added in Railway Belt
Office of B.C. Inspector of Timber Reserves opened in Kamloops
- 1907 Peace River Block transferred to Dominion of Canada in lieu of alienated and marginal lands
- 1909 Canadian Commission of Conservation, Committee on Forests formed and undertakes surveys in B.C.
- 1911 *Forest Reserves and Parks Act*
- 1913 Five additional forest reserves created in the Railway Belt
- 1918 Vancouver Forest Products Lab established. Canadian Commission of Conservation publishes "Forests of British Columbia."
- 1919 Dominion Forest (Insect) Lab opened in Vernon
- 1921 New Westminster seed extractory constructed. Research on lodgepole pine taper, thinning and yield
- 1930 *Transfer of Resources Act*. Unalienated lands in the Railway Belt and Peace River Block transferred to the Province of B.C., and few remaining staff transferred to Vancouver
- 1935 Forest Insect Survey created; expanded to include diseases in 1952
- 1936 Department of Mines and Resources
- 1937 Office of B.C. Inspector of Timber Reserves closed
- 1940 Victoria Forest Disease Lab opened
- 1949 *Canada Forestry Act* gives authority for expansion of economic development agreements with provinces
- 1950 Department of Resources and Development
- 1953 Northern Affairs and Natural Resources
- 1960 Department of Forestry created from Forestry Branch and Forest Biology Division, Department of Agriculture
- 1965 Pacific Forest Research Centre opened
- 1966 Forestry Branch of Department Forestry and Rural Development
- 1969 Forestry Branch of Department of Fisheries and Forestry
- 1970 Vernon Forest Insect Lab closed
- 1971 Department of Environment
- 1972 Canadian Forestry Service formed
- 1978 Department of Fisheries and Environment. Forest products labs privatized
Forintek Canada takes over Western Forest Products Lab
- 1980 Department of Environment
- 1984 Agriculture (Minister of State for Forestry)
- 1986 Agriculture (Minister of State for Forestry and Mines)
- 1988 Forestry (pending Royal Assent). Prince George District Office opened
- 1990 Canadian Forestry Service becomes Forestry Canada
- 1993 Department of Natural Resources
- 1995 Prince George District Office closed. Forest Insect and Disease Survey discontinued
- 1999 Centennial of Canadian Forest Service

PRESIDENT'S MESSAGE

By Geoff Bate

I am pleased to advise that, on the recommendation of the FHABC Executive and his acceptance, John Revel is our Executive representative for north and central B.C. John has been a loyal supporter of FHABC activities for many years. If you wish to contact John his phone number is 250-564-6156 and his mailing address is P.O. Box 168, Prince George BC V2L 4S1.

The FHABC Executive has a vacancy in the Kootenay area. If you know of a member that you feel would be a good candidate or wish to volunteer your services please contact me.

We had a successful Annual General Meeting at the Pacific Forestry Centre as the Canadian Forestry Service celebrated their 100th anniversary. After some discussion and on approval of the membership it is with regret that our annual FHABC dues are to increase to \$10 per year or \$45 for 5 years. Publication costs for the newsletter and other commitments have been in excess of revenues.

NEW PUBLICATIONS

IWA Canada Local 1-80. 1997. IWA Canada 1-80, a 60 year history 1937-1997.
IWA Canada Local 1-80, Duncan, B.C. 88 p. (chiefly pictorial)

Mitchell, Ann Lindsay and Syd House. 1999. David Douglas – explorer and botanist.
Aurum Press, London, England. xiii + 241 p.

Reierson, Ed. 1999. The thrill of the deal – how this logger made a million in the bush.
E.W. Books, Quesnel, B.C. 283 p.



This newsletter is the official organ of the Forest History Association of British Columbia. It is distributed at no charge to members of the association, libraries, archives and museums. Items on forest history topics, descriptions of current projects, requests for information, book reviews, letters, comments and suggestions are welcomed.

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Membership in the association is \$7.00 yearly, or \$30 for five years. Please send dues to the Treasurer: Mr. Edo Nyland, 8793 Forest Park Drive, Sidney, BC V8L 4E8. Phone (250) 656-9276. E-mail: edonon@islandnet.com

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