

Contested Conservations: Forestry and History in Nova Scotia

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Abstract

Forest conservation in Nova Scotia found its institutional expression in the 1920s, long after the establishment of many other Canadian and leading global centres of conservation science. With several differing and competing conservation ideologies from which to choose, the provincial government loaned its support to British, European, American, and Canadian versions at various times. Three successive leaders of the province's main forestry agency—J.A. Knight, Otto Schierbeck, and Wilfrid Creighton—demonstrated quite different ideals of conservation, and equally different strategies for negotiating the politics of forestry, ranging from prickly independence to eager cooperation with rival power centres in the federal government, international agencies, and in industry. Each distinct approach dictated a set of policies that helped shape the forest and the forest industries of Nova Scotia. Contrary to the assumption that conservationists past and present approach more or less closely a single, ahistorical scientific norm, the account of policy vacillation in this essay illustrates the ideological content and historical contingency of forestry science.

During the golden age of forest conservation at the beginning of the twentieth century, while the science and practice of forestry flourished in America, central Canada, and all over the British Empire, and despite warnings about a declining timber industry at home, the Canadian province of Nova Scotia hesitated to establish a conservation agency. When it finally did, in the 1920s, no single intellectual regime remained dominant in the global field; conservationist impulses were felt from multiple directions, and conflict in the province over the meaning of the term

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“conservation” was sharp. The record of that conflict is not one of greater and lesser adherence to singular scientific truth, as it is often portrayed, but rather an unusually clear record of scientific conservation as contested ideology.

The contest was certainly long in coming, in contrast to some other jurisdictions. Major forestry bureaus such as the British Indian Forest Service (1864), the US Division of Forestry (1881), and the Dominion Forestry Branch (1899) in Ottawa were well established by the time Nova Scotia created its Department of Lands and Forests (DLF) in 1926.² Nova Scotia did run ahead of much of the pack in North America with rules around the prevention of forest fires, but that was on account of the early date of settlement and the importation of English laws for the protection of private property, and not due to any pioneering concern with conservation of a common resource. The first real major advance in fire prevention practice, a state-organized fire-ranging service, came to Nova Scotia later than it did to most of the rest of Canada or to the national agencies listed above, and for two decades it remained the total of the provincial government's conservation effort.

Nova Scotia's late conformity to the institutional trend has led to its being overlooked in national histories and in the national claims of other regional histories. The field of forest history in Canada has long been committed to an analytical definition of conservation, a set of conditions that constitute “real” conservation against which historical reality can be tested. Such assumptions limit historians' ability to incorporate the bio-geographical and political variety of the country into one account of Canada's conservation history. A beginning researcher, for example, must ask if a province without a technocratic forestry bureau belongs in the narrative of Canadian conservation. Those who put a definition ahead of historical reality will tend to answer “no” and to neglect eras and regions where, for example, fire protection was the only institutional expression of the conservationist ideal. This refusal to recognize the ideological content of technology runs strongly through the

² Sources on the earlier agencies are numerous. See especially, for India and the USA: Richard Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens, and the Origins Of Environmentalism, 1600-1860* (Cambridge: Cambridge University Press, 1995); Samuel Hays, *Conservation and the Gospel of Efficiency: the Progressive Conservation Movement, 1890-1920* (New Haven: Harvard University Press, 1959). The Dominion Forestry Branch (DFB), as well as Quebec's Forest Protection Service (1905) and Ontario's various forest administrations of the same era, are discussed in: Peter Gillis and Thomas Roach, *Lost Initiatives: Canada's Forest Industries, Forest Policy, and Forest Conservation* (New York: Greenwood, 1986). British Columbia's Forest Branch (1912) also preceded Nova Scotia's, and the creation of Alberta's Forest Service (1930), though later, was essentially a wholesale transfer of parts of the DFB to provincial jurisdiction, as was the case with Manitoba's Forest Service (1930) and Saskatchewan's Department of Natural Resources (1931). All four shared the DFB's brand of forestry and strong connections to the American forestry establishment, and all are discussed in: Stephen Pyne, *Awful Splendour: A Fire History of Canada* (Vancouver: University of British Columbia Press, 2007), 279-328. New Brunswick's very early forest administration (from 1817) on British imperial lines is discussed in: Graeme Wynn, *Timber Colony: A Historical Geography of Early Nineteenth Century New Brunswick* (Toronto: University of Toronto Press, 1981).

history of Nova Scotian forest conservation. Arthur Lower's 1938 work on Canadian forests seems to have set the mold by insisting that Nova Scotia "lost control" of forest policy through the alienation of Crown land. Later authors have shown minimal concern for the Maritime region generally, sometimes citing along with Vivian Nelles the "depleted" Maritime forests as a factor in a supposed westward shift of the Canadian lumber industry and its associated policy debates.³ Looking at Nova Scotia, with its atypical preponderance of private rather than state land ownership (87 percent to 13 percent, by the 1930s) and its long failure to appoint an effective technocratic forestry bureau, historians have seen little of conservation in the early twentieth century.⁴

But take a contingent definition instead of an analytical one and it is possible to appreciate various historical conservation ideologies as their proponents viewed them, and not in contrast to an imposed ideal. Local events and circumstances—political expediency, personality clashes, patronage appointments, influence peddling, budgetary parsimony, and simple legislative happenstance—have always determined not only the conservation policies but also the dominant conservation ideologies of all jurisdictions. To the historian who recognizes this historical contingency, Nova Scotia's lack of alacrity in institutionalizing the various conservationist orthodoxies of the 1880s, 1890s, or early 1900s provides a good illustration of the case of the "late adopter" in an increasingly global market of ideas. Foresters associated with the British Empire (to which Nova Scotia and its forest industries maintained a relatively stronger economic connection than did central or western Canada) were active in trying to strengthen the bonds of professional and imperial solidarity within the network of an imperial federation of forestry bureaus; continental European foresters meanwhile enjoyed the prestige of representing the oldest and most intensive scientific forestry systems around; the strongly centralized American conservation establishment had become accustomed to offering advice and opportunities for collaboration to Canadian foresters; and the Canadian establishment, while smaller than the American and still envious of its political power and prestige, had developed its own independent educational and scientific forestry institutions (as well as political machinery) and was avidly expanding its influence within the Dominion. Each potential source of conservationist ideas displayed its own characteristic emphasis within the basic set of conservation ideals,

3 A.R.M. Lower, ed., *The North American Assault on the Canadian Forest* (New York: Greenwood, 1968, original 1938). Vivian Nelles, *The Politics of Development: Forests, Mines and Hydro-Electric Power in Ontario, 1849-1941* (Montreal and Kingston: McGill-Queen's University Press, 2005, original 1974). Peter Gillis and Thomas Roach, in *Lost Initiatives*, 69, also referred to strictly fire-protection foresters dismissively as "foresters without axes."

4 S.A. Saunders, "Forest Industries in the Maritime Provinces," in A.R.M. Lower, ed., *The North American Assault on the Canadian Forest* (New York: Greenwood, 1968, original 1938), 358.

and the contest among them sheds much needed light on a key phase of the development of a Canadian conservation orthodoxy over the early twentieth century.⁵

Early Conservation

At its earliest, after 1728, Nova Scotia shared with the New England colonies the attention of the British sovereign's Surveyors General in North America. These officials sent their agents into the colonial forest to mark suitable trees with the Broad Arrow, reserving them for the exclusive use of the Royal Navy. The Surveyors General were not conservationists in any but the broadest sense of the word; they acted to protect a single scarce resource—mainly mast trees, and some other hard-to-find ship timbers—for a single user, and not the general resource for the public or national good. Nor were they in any sense a recognized professional body. They did however set a precedent for the involvement of the state in the management of what were to become known as public resources. According to N.A.M. Rodger, the procurement measures of the Royal Navy were a driving force in the development of the entire administrative apparatus of government in the British Empire in the eighteenth century, and a secure timber supply was always one of its major concerns.⁶ Small wonder then, that public administration of forest resources should have developed from such a beginning.

Second to His Majesty's Broad Arrow, fire was the earliest matter for regulation. In 1761, "an Act for preventing damages by unseasonable burning or firing of the woods" was voted into law by the Nova Scotia Assembly. Only the first in a long series of anti-fire measures passed by that body, the new law actually aimed at the prevention of harm to buildings, crops, and livestock, rather than to forests, but the legislation that followed did take on more and more of a conservationist cast. Acts to prevent theft of timber from Crown land, to define the magnitude of timber that would be deemed merchantable, and to prevent wastage of timber trees on ungranted land all passed in the 1760s and 1770s. The most significant step from

⁵ For more on the American and British influence on Canadian forestry, see: Gabrielle Blais, "Not a Paying Business': The Archival Legacy of the Canadian Forestry Service," *Journal of Forest History* 32, no.3 (July 1988): 150-156. Also, on the American and inter-Canadian influence: Gillis and Roach, *Lost Initiatives*, 56.

⁶ Jim Lotz, *Green Horizons: The Forests and Foresters of Nova Scotia* (East Lawrencetown, NS: Pottersfield Press, 2005), 17; Pyne, *Awful Splendour*, 77; N.A.M. Rodger, *The Command of the Ocean: A Naval History of Britain, 1649-1815* (London: Allen Lane, 2004). A secure supply of resource for the future forms the most basic element of any conservation ideology, as opposed to preservation, which included as well a concern for non-extractive uses of nature. For additional explanation of the difference, see Hays, *Conservation and the Gospel of Efficiency*, 189-198.

mere property protection toward an efficiency-minded technocratic forestry came after France began to threaten Britain's Baltic timber supply. As the Royal Navy looked to the empire for its needs and the pace of commercial lumbering picked up in British North America, Governor John Wentworth hired Titus Smith Jr. to perform the colonies' first forest inventory in Nova Scotia in 1801-02. Traversing the interior of the mainland with an eye out for good pine, Smith classed the lands he saw by the value of their timber or as "burn" and "barren," both of which he estimated at over a million acres. His report, emphasizing the large acreage of potential forest wealth lost to fire, is the first clear documentary link between the state's involvement in the scientific measurement of available resources, the regulation and promotion of their use, and the prevention of wastage through fire.⁷

This early combination of ideas about land use, waste, and the powers of the state was a first step into a new way of thinking not unique to Wentworth's corner of the empire. The Great Trigonometrical Survey expedition in India in 1817, along with others around the same time, was one of the turning points in the transformation of British rule into a more direct, rationalist, efficiency-obsessed form of government, a development that made possible the rise of a group of forest conservationists within the British Indian regime.⁸ An analogous development may be foreshadowed by Smith's forest survey of Nova Scotia. The reservation of particularly valuable tracts to the Crown, prevention of "waste" through fire prevention and lumber regulation, and finally the scientific measurement and classification of the resource: these together comprise an early nineteenth century form of conservation. Consistency was lacking and enforcement practically nil, but as an indication of a dawning imperial conservationist mentality—one that accomplished the complete conceptual commodification of land and forests—the Acts of the Nova Scotia Assembly in the late eighteenth and early nineteenth centuries are significant.

The balance of the nineteenth century confirmed the trend of Nova Scotian conservation. In 1851 the burning of any forest became a prosecutable offence, and the Crown Land Department acquired the legal power to lease rather than grant land to lumberers. These alone were modest measures; a large proportion of the colony's land base was already in private hands by mid-century, and an ability to lease land did not necessarily equate to a commitment to do so. The granting of large tracts continued until the end of the century. Still, there is an evident early drift towards the kind of state control that would become so well-developed in later conservation and another intellectual link to the British model, which had developed in India a

⁷ Ralph Johnson, *Forests of Nova Scotia: A History* (Halifax: Department of Lands and Forests, 1986), 59-60.

⁸ M.H. Edney, *Mapping the Empire: The Geographical Construction of British India, 1765-1843* (Chicago: University of Chicago Press, 1997), 296, 319. Also Thomas Metcalf, *Ideologies of the Raj* (Cambridge: Cambridge University Press, 1997).

tendency to maintain ownership of land in state hands while contracting out its exploitation. Further forest fire regulations followed, and in 1899 the province authorized the repurchase of granted lands by government, mandated leases of Crown land instead of grants, and imposed a ten-inch diameter limit for trees felled on leased land.⁹ It was the first attempt by the provincial government to control the practices of the lumber industry at the point of production rather than sale. Like earlier attempts to stop trespass on Crown land, diameter limits were honoured more in the breach than the observance, but the principles of early conservation are written in the law and not in the practice.

The control of fire continued as an obsession in the golden age of forest conservation at the end of the nineteenth century. It “drove the agenda of forest conservation” in fire-prone North America and played a key role almost everywhere else.¹⁰ Nova Scotia was no exception. In 1904 an Act for The Protection of Woods Against Fires levied a ¼ cent per acre tax on owners of 1000 acres or more (dropped the following year to 500 acres or more) to pay for a new system of Chief Fire Rangers throughout the province. Chief Rangers were empowered to direct fire-fighting operations, call out volunteers, and collect the fire tax. While hardly “technocratic” themselves—appointment to the position was a political favour and newly elected governments regularly replaced the entire corps—the notion of a service made up of public employees dedicated to the direction of human resources in preserving both public and private forests from wastage was a conservationist ideal. In fire-ranging, though, Nova Scotia fell twenty years behind the pace set by Ontario and Quebec and even further behind the British Empire, giving the first indication that institutionalizing the conservationist impulse rather than simply writing it into law would be the greatest challenge for those who championed the cause.¹¹

If it is difficult to see beyond British imperial conservationist influence in Nova Scotia’s nineteenth century, the same cannot be said of its twentieth. The events of 1909-10 demonstrated new sources of conservationist thinking. The province was far from untouched by the surging popularity of scientific forestry that underlay the rise of the US Forest Service and the Dominion Forestry Branch in the same decade. The University of New Brunswick’s Forestry School, opened in 1909, was a bastion of the new North American orthodoxy right next door. But there were

9 On the legislative history, see: Province of Nova Scotia, *Report of the Commissioner of Forests and Game, 1921* (Halifax: Commissioner of Public Works and Mines/King’s Printer, 1922), 7.

10 Quoted from Pyne, *Awful Splendour*, 145. For the Indian case see: Mahesh Rangarajan, *Fencing the Forest: Conservation and Ecological Change in India’s Central Provinces 1860-1914* (Delhi: Oxford University Press, 1996), 88-89.

11 Central Canadian fire ranging owed much to American influence through the American Forestry Congress of 1882. See: Gillis and Roach, *Lost Initiatives*, 41-43. For more on Quebec and on New Brunswick, which also had such a service beginning in 1897, see: Pyne, *Awful Splendour*, 232, 242.

distinctions too. Conservationists in the province shared with the US Forest Service a problem that did not much trouble their counterparts in the central Canadian provinces or much of the British Empire: how to practice conservation when the state had already alienated so much of its forested land. At the same time, they also shared a uniquely Canadian sentiment with the men in Ottawa—economic nationalism.

Another milestone Act in 1910 allowed the province to expropriate “exhausted” forest land, encouraged replanting, and allowed for the sale of Crown land leases at auction rather than directly. In the same year, Dr. Bernhard Fernow, pioneering US forester and the first dean of the Toronto School of Forestry, was finishing up his survey of the province’s forests, which work underlined their “poor condition” and the large proportion (c. 20 percent) that lay in a barren state due to past fire damage and lack of remedial attention. Both events seem on the surface to belong to the golden age of both American and Canadian technocratic forestry; having retained, or re-acquired, control of the land and with science at his command, a trained forester would be able to produce a timber “crop” in perpetuity. It was with just such an understanding of their role in mind that the men of the US Forest Service had only recently put together under their own control a huge network of National Forests, and those at the Dominion Forestry Branch in Ottawa had managed to gain a degree of influence over the forest reserves they had helped to create in western Canada. Yet much that seems common to the two countries can be traced to the USA, and the interventionist advocacy of Fernow’s report, like most of his forestry work, probably reflected his American experience more than his new Canadian career.¹² The province’s threat to expropriate clear-cut land, however, was really more distinctly Canadian, an encouragement to landowners to practice a style of selective cutting that might keep the province’s lumber industry alive and the American pulp and paper industry from dominating the woods. Clear-cutting by pulpwood exporters for the US market was beginning to trouble Nova Scotians in the early twentieth century (witness the rule allowing a ban on pulpwood exports from leased Crown land, also in 1910), and lumber producers feared for their economic futures.¹³ The legislation ended up neither enhancing the power of foresters much nor preventing the slow shift of markets and production from British Empire timber to United States pulp and paper, but again the most important aspect of the legislation

12 Bernhard Fernow, C.D. Howe, and J.H. White, *Forest Conditions of Nova Scotia* (Ottawa: Commission of Conservation, 1912). One might even point out a European influence in Fernow’s advocacy of “Prussian” methods of reforestation and the appearance of the same concept in the 1910 Act.

13 Rightly so, as they were being eclipsed already by the pulp industry in export value and consequently in political influence. They also enjoyed a curiously Janus-faced support from the government, which like other provincial governments courted pulp and paper producers while also fearing their economic power. See: L. Anders Sandberg, “Forest Policy in Nova Scotia: The Big Lease, Cape Breton Island, 1899-1960,” *Acadiensis* 20, no. 2 (1991): 113, note 30.

lies not in its effectiveness on the ground, rather in the indication it can give us of conservation ideals and influences. US-style scientific forestry was a desirable pursuit in 1910, worth supporting Fernow's efforts, but the country's ability to control its own resources was plainly of greater concern.

The value of pointing out the influence of imperial and other conservations in Nova Scotia before the First World War is to recognize that historical change was gradual and that institutional expression, be it the Department of Forests and Game in 1921 or the Department of Lands and Forests in 1926, is not the essence and *sine qua non* of conservation. The conservations of the long nineteenth century were different in degree, and only occasionally in kind, from those of the twentieth century—less technocratic for example, but not antitechnocratic. They were no less types of conservation. Institutional expression did increase somewhat the continuity of policy from the era when an Act promoting Crown land leasing in 1851 could be followed twenty-four years later by one newly authorizing large grants of 2000 acres or more, and then again by another mandating leases after twenty-four more years. There remained however, prior to the dawn of the Civil Service era (c. 1935), discontinuities of personnel within government that made policy change an abrupt and sometimes acrimonious event.

Institutions

In 1921 a new Department of Forests and Game (DFG) replaced the Nova Scotia Game Commission. The DFG gained jurisdiction over the corps of fire rangers created in 1904 but still shared the administration of the province's woods with the Department of Crown Lands. Thus those government officials most present in the forest, game wardens and fire rangers, began to share some of their duties, but the investigation of Crown land trespassing, the monitoring of lease terms, and the regulation of logging practices were not among the duties of either. This division of powers stood out as contrary to the global trend toward centralized control of the land. Among British, European, American, and central Canadian foresters, the ability to dictate terms of land use was viewed as vital to the work of conservation; foresters believed that they alone could determine, free of political considerations, a piece of land's true and scientifically-derived "highest" manner of use, as well as a forest's annual rate of growth and allowable cut. In this, Nova Scotia was still clearly a late convert to the modern style of conservation pioneered in British India and imported to North America around the turn of the century. The province's policy makers had kept pace with the rationalist, efficiency-oriented, fire-fearing conservationism of the previous century, but hesitated for decades to emulate the increasingly technocratic

and professional forestry services so fiercely fighting for political power elsewhere.

The head of the new DFG was wholly suited to the political reality of a forestry service that existed very nearly in name only. J.A. Knight served as Commissioner of Forests and Game from 1921 to 1926, when his department was finally thrown together with Crown Lands to form the Department of Lands and Forests. During Knight's half-decade of leadership, his federal counterpart at the Dominion Forestry Branch, E.H. Finlayson, was in the full swing of his own campaign to turn the Forestry Branch into Canada's version of the US Forest Service, a powerful and semi-autonomous central conservation agency.¹⁴ Knight, as the Forest Branch was quick to learn, would be of little help.

Beginning just after the first British Empire Forestry Conference in London in 1920, Knight's official correspondence and annual reports display an unapologetic reluctance to engage with any of the "forestry powers" of the decade. The Forestry Branch looked to the imperial connection in the 1920s as a tool to secure US-style power inside Canada; it took the opportunity of the London conference to bring home its theme of state responsibility for matters of forestry and its proposal to establish an Imperial Forestry Bureau, paid for in equal parts by the UK government, the government of British India, the crown colonies, and the dominions.¹⁵ Both matched Finlayson's designs perfectly. Knight's reaction, revealed in a letter to Nova Scotia's Deputy Provincial Secretary was to tersely emphasize the costs and pointedly inquire what possible benefits there could be for the province in any imperial federation of foresters.¹⁶

Knight's attitude toward the Forestry Branch's integrationist plans remained one of friendly obstructionism throughout the early 1920s. He attended the second British Empire Forestry Conference in Ottawa in 1923, itself only the first of two gatherings at which Finlayson and the Forestry Branch hoped to manoeuvre the provinces and competing federal agencies into the Branch's shadow, but Nova Scotia was not considered an important participant—, despite its well-established timber and growing pulp and paper industries—and Knight's participation was minimal.¹⁷ His annual report for the year gave no indication that the conference was at all useful or relevant to his position in Nova Scotia. At Finlayson's encore, a 1924 National Forestry Conference carefully restricted to fire protection as the topic most likely to bring out a cooperative spirit among provincial delegates, Knight spoke long enough

¹⁴ Gillis and Roach, *Lost Initiatives*, 202-205.

¹⁵ Pyne, *Awful Splendour*, 207-8. Blais, "Not a Paying Business," 152-3.

¹⁶ J.A. Knight, letter to Arthur Barnstead, 9 September 1921, Department of Lands and Forests fonds, Record Group 20 [hereafter RG20], 820:19, Public Archives of Nova Scotia [hereafter PANS].

¹⁷ *Second British Empire Forestry Conference, Proceedings and Resolution* (Ottawa: F.A. Acland, 1927), 203. He did speak, however, and in the course of addressing the Branch's calls for greater centralization pointed to his fire-ranging service and said, "in Nova Scotia we have unity of control." He did not deign to consider federal unity.

to argue that a moist climate and a well-scattered rural population made Nova Scotia less vulnerable to forest fire than the other provinces. “No province,” he later wrote, “in proportion to forest area, has suffered so little.”¹⁸ He could hardly have designed a more heretical act than to downplay the threat of forest fire at a forester’s conference in the 1920s, or one more clearly contemptuous of Finlayson’s national ambitions.

J.A. Knight was not negligent in his duty as he saw it; his conception of forest conservation was simply consistent with the pre-war tradition and well in line with his department’s circumscribed role: fire prevention and little else. It was he who saw that the fire tax surplus could be used by municipalities to purchase fire-fighting equipment, he who advocated raising the same tax so that surpluses could be so used more often, and his department that supported the Canadian Forestry Association’s lecture tours on fire safety (albeit with a very modest financial contribution).¹⁹ But when federal money was on offer in exchange for cooperation within the Dominion, or when the Forestry Branch pressed him to conform to a national standard for forest fire reporting, Knight balked. He also temporized when asked to support the expansion of Forest Week propaganda from fire prevention to all aspects of forestry.²⁰

Yet for all that he represented the nominal conservation agency of the province, Mr. Knight was not the only attendee travelling to the national conference in 1924 with a Nova Scotian connection. Otto Schierbeck also attended, and his notion of conservation was decidedly more comprehensive than Knight’s, and far more European as well. Unlike Knight, Schierbeck was a willing federalist and internationalist, but his intellectual affinities were also less broad than Knight’s aversions. Schierbeck was a product of the European forestry tradition, a Danish forester brought to Canada initially to work for Price Brothers in Quebec but on the verge of moving to Nova Scotia to work for pulp producer F.J.D. Barnjum. In Ottawa in 1923, he had argued that forest fire prevention was “the most important question” in conservation, regardless of any differences in local climate.²¹ His work in Nova Scotia with Barnjum highlighted the fact that some large private landowners in the province were much faster to adopt the modern technocratic forestry orthodoxy—when it was in their interest, at least—than the provincial authorities, and his elevation to the head of the new DLF in 1926 tells us that not everyone in

18 Pyne, *Awful Splendour*, 223. Province of Nova Scotia, *Report of the Commissioner of Forests and Game, 1925* (Halifax: Minister of Public Works and Mines/King’s Printer, 1926), 9.

19 Province of Nova Scotia, *Report of the Commissioner of Forests and Game, 1925* (Halifax: Minister of Public Works and Mines/King’s Printer, 1926), 9. J.A. Knight, letters to and from the Canadian Forestry Association, August and September 1925, RG20, 835:65, PANS.

20 J.A. Knight, letters to and from the Department of the Interior Forestry Branch, August and September 1925, 12 and 21 September 1915, RG20, 836:72, PANS.

21 *Second British Empire Forestry Conference, Proceedings and Resolution*, 209.

government shared Knight's traditionalist views.²²

Otto Schierbeck was a classical European forester through and through, and under the Lands and Forests Act of 1926 the department he led would be responsible for setting the terms on all Crown land leases, carrying out all provincial land and forest surveys, seeing to "the conservation and protection of all forests and timber lands, whether the same are Crown Lands or privately owned," and managing and policing the hunting of wild animals.²³ It was a full mandate for a modern technocratic forester, or it would have been if Schierbeck had enjoyed the support of a suitable minister or Premier, a Roosevelt to his Pinchot.²⁴ Schierbeck's patron in Nova Scotian politics, however, was F.J.D. Barnjum, the same businessman who had employed him as a "public forester" to look after private woodlots in the province since the first years of the decade. Barnjum was (and remained) a man of influence with the Conservative party under Premier Rhodes, but his own political career fell apart almost immediately after winning a seat in the 1925 provincial election. Unable to use his new position to secure a deal to take over the Macleod Pulp and Paper Company, Barnjum resigned from the Legislative Assembly in 1927.²⁵ Having convinced the government to hire Schierbeck, he was unable to ensure that the Chief Forester would be allowed to move beyond managing the Forest Ranger Service and writing contracts for new leases.

Schierbeck was far more willing than Knight had been to engage with the Dominion Forestry Branch or Department of Agriculture (DOA). In his first year as Chief Forester he wrote to the federal Minister of Agriculture in order to draw attention to the latter's lack of support for entomological science on the east coast. Such letters became a staple of Schierbeck's correspondence with the DOA and Forestry Branch over the following years; whether it was the Beach Bark Louse or Spruce Budworm, he would regularly complain that federal agencies were not acting fast enough or aggressively enough to control insect threats to the Acadian forest.²⁶ He also encouraged the Attorney General of Nova Scotia, John C. Douglas (acting Minister of Lands and Forests for several years after the creation of the department) to apply for available federal funds to devote to forestry research, and to be more

22 Thomas McMullen, the "Lumber King of Nova Scotia," was another of the early private conservation leaders in the province, setting a 12 inch diameter limit on trees cut from his lands. See: Lotz, *Green Horizons*, 21.

23 *Lands and Forests Act*, 1926 (NS), c.4.

24 Gifford Pinchot was the first Chief of the US Forest Service and enjoyed the enthusiastic support of President Theodore Roosevelt.

25 Thomas Roach and Richard Judd, "A Man For All Seasons: Frank John Dixie Barnjum, Conservationist, Pulpwood Embargoist and Speculator!" *Acadiensis* 20, no (Spring, 1991): 141.

26 Otto Schierbeck, letter to federal Minister of Agriculture, 11 February 1926, RG20, 718:1, PANS. Otto Schierbeck, letters to J.M. Swaine, Associate Dominion Entomologist, late 1925 and early 1926, RG20, 718:11, PANS.

generous toward the Canadian Forestry Association.²⁷ Schierbeck may have hoped, rather like E.H. Finlayson in Ottawa, to use the federal-provincial connection to enhance his own political influence at home, but it was a vain hope.

The renewal of leases on Crown Land was one of the few areas in which Schierbeck's powers as Chief Forester allowed him to exercise his own will. Though denied the opportunity to rewrite the terms of the "Big Lease" on Cape Breton Island, 600,000 acres with scarcely more conditions on its use than freehold, he did get to put export prohibitions on several others. European forester though he was, economic nationalism was one area in which Schierbeck fell into the Canadian style of conservationism. After the final years of the nineteenth century most Canadian provinces had become interested in resource-based economic development, and they used manufacturing conditions on export logs to draw processing industries north of the border, something Schierbeck encouraged the Minister of Lands and Forests to do in Nova Scotia. Much like central Canadian conservationists, his argument cited the over-exploitation of Canadian forests for American profit as both "an economical crime" and bad forestry practice. Most likely it was his patron's influence that inspired the Chief Forester to take up the nationalist cause; Frank Barnjum was in a position to profit immensely from a restriction of Canadian timber exports, and much of his conservation propaganda was directed at encouraging it. But whatever his reasons for advocating sweeping export restrictions and for writing no-export clauses into his leases, Otto Schierbeck's commitment to what he saw as correct forestry principles trumped all. He frequently encouraged the Auditor General to temporarily allow export of raw logs from Crown land as a salvage measure, since the domestic market was not large enough to absorb them. His priority remained the full use of the resource.²⁸

Schierbeck's other main conservation priority was to replenish what had been used. In this he followed the European model loyally. His letters and annual reports are thick with lectures on the science of silviculture and the urgent necessity of artificial reforestation. He put government funds and constant personal effort into promoting tree-planting by youth groups (especially the Boy Scouts, whose continuing interest in silviculture today is traceable to Otto Schierbeck's proselytizing) and started a provincial nursery to supply seedlings free of charge to anyone in the province willing to undertake the job of planting them. Not a year of Schierbeck's term passed without reference to the work of another European-trained

²⁷ Otto Schierbeck, letters to Attorney General, 18 December 1925, and 13 February 1926, RG20, 718:4, PANS.

²⁸ Otto Schierbeck, letters to Attorney General, RG20, 718:4, PANS. Quoted from letter of 29 September 1925. Schierbeck also encouraged new industries in the province's forest sector, such as plywood manufacture, see: Otto Schierbeck, letter to Atlas Plywood Corporation, 4 May 1926, RG20, 718:14, PANS.

forester, Bernhard Fernow, whose 1909-1910 survey of the woods of Nova Scotia had found some 20 percent of them burned, barren, and otherwise in desperate need of remedial attention. For Schierbeck, avowedly eager to grow a German forest in Nova Scotia, plantation was the essence of good forestry.²⁹

Otto Schierbeck's term as Chief Forester marked a sea change in forestry policy in Nova Scotia. It did not, however, mark a significant change in forestry practice. The man himself never failed to remind his correspondents that good forestry meant taking care in the removal of trees as much as in their replacement, to point out that work in the woods was still carried on in an anarchic, unsupervised manner "undefendable from a conservation standpoint," or to urge the provincial government to adopt a "definite" forest policy.³⁰ In any event, he was ignored. Schierbeck had an instinct for political error, and his constant attempts to impose proper European forestry principles on a developing province trying to use its forest resources to attract foreign capital earned him few friends in government. When in 1933, soon after the death of Frank Barnjum, Schierbeck allowed his name to appear on a magazine article that seemed to embarrass the province, the new and anti-regulation Minister of Lands and Forests, John Doull, took the opportunity to fire him.³¹ F.A. Harrison, the Chief Clerk who replaced Schierbeck at the head of the reorganized department, summed up the failures of his predecessor's term: of the new rules on tree-cutting practices that the 1926 Lands and Forests Act empowered the Minister to create, "no such regulations were ever prescribed"; the timber industry continued to operate with no rules at all regarding the disposal of woody debris left behind after logging; and the province had no approved literature on "forestry or reforestation" to offer to interested landowners.³²

The seven years of Otto Schierbeck's DLF occupy a curious place in conservation history. Arguably the fiercest conservationist in the province in the early twentieth century, and yet a man who achieved relatively few of his objectives in office, Schierbeck appears in history alternately as the grandfather and the grand failure of Nova Scotian conservation. The most useful conclusion that can be drawn from his lack of practical success and ignominious removal is not that Otto Schierbeck had a political tin ear or that his role was to plant seeds destined to

29 For example, see: Otto Schierbeck, "Report of Chief Forester," in *Report of the Department of Lands and Forests, 1930*, Province of Nova Scotia, (Halifax: Minister of Public Works and Mines/King's Printer, 1931), 5-92. Otto Schierbeck, letter to Attorney General, 6 November 1925, RG20, 718:4, PANS.

30 Otto Schierbeck, letter to Attorney General, 29 September 1925, RG20, 718:4, PANS.

31 John Doull, letter to Otto Schierbeck, 20 January 1932, RG20, 739:9, PANS. Wilfrid Creighton, *Forestkeeping: A History of the Department of Lands and Forests in Nova Scotia 1926-1969* (Halifax: Department of Lands and Forests, 1988), 37-38.

32 F.A. Harrison, letter to J.A. MacQuarrie, 4 October 1933, RG20, 612:20, PANS. F.A. Harrison, letter to H.I. Stevenson, Manitoba's Provincial Forester, 30 January 1934, RG20, 614:2, PANS. F.A. Harrison, letter to Malcolm Moores, 31 January 1934, RG20, 615:27, PANS.

mature in a future that he himself would not see, it is simply that he represented a small faction in the province's population of conservationists. His strictly European conservationism was an uncompromising ideology not shared by many others in a province where large corporate landowners and pulpwood shippers, and the desire to attract American capital with Crown land concessions, dominated both sides of the regulatory relationship in the timber industry. His commitment to scientific forestry—growth rate surveys, yield tables, selective thinning, and massive replanting—was immutable, and also faintly ridiculous to people who still thought of conservation as little more than fire prevention. In the contest of conservationisms, his was too rigid to prevail in a place and time where others could look just as rational and attractive, or even more so.

F.A. Harrison and his new Provincial Forester, Wilfrid Creighton, articulated one of those more attractive conservationisms for Nova Scotians in the early 1930s. Theirs looked more to the American and Canadian models than the European. Gone was Schierbeck's ultra-scientific approach of survey, categorization, and calculation. Creighton encouraged the federal agencies to continue their entomological work in the province, but the widespread maintenance of sample plots of thinned forest for the education of small owners was quickly scaled back and redirected toward large operators like the Mersey Paper Company.³³ The same large operators continued to clearcut their land despite such gentle reminders of the department's disapproval, prompting warnings about overcutting and future shortage in the 1936 and 1937 DLF annual reports. Yet the department continued to issue new licenses to cut on Crown lands, arguing that "improved logging practice would increase annual growth sufficiently to make up the difference between annual cut and annual increment."³⁴ Improved practice proved difficult to achieve.

The Creighton era in the DLF (and it was his era, thirty-five years long, including a lengthy term as Deputy Minister) was marked by the search for a less antagonistic relationship with industry than prevailed under Schierbeck's administration. Corporate foresters often found work with government and *vice versa*, and the policy positions of the department began to conform more closely to the needs of the large pulp and paper concerns.³⁵ For example, the sharpest contrast between Schierbeck's European conservationism and Creighton's more corporatist, American-influenced variety existed on the issue of artificial reforestation. In 1933 the department ceased supporting the tree-planting activities of the Boy Scouts,

33 W. Creighton, letters to J.A. MacQuarrie, 3 December 1935, and 6 January 1936, RG20, 683:4, PANS.

34 Province of Nova Scotia, *Report of the Department of Lands and Forests, 1936* (Halifax: Provincial Secretary / King's Printer, 1937). Province of Nova Scotia, *Report of the Department of Lands and Forests, 1937* (Halifax: Provincial Secretary / King's Printer, 1938), 28.

35 Creighton, *Forestkeeping*, ix-x, xv.

citing the “general opinion that this line of endeavour had achieved its purpose.” The following year, Harrison and Creighton advanced a more theoretical justification for the change, explaining that natural reforestation was perfectly effective on all but the barest rocky barren. If one would only wait for the natural succession of species, they argued, in terms familiar to spokesmen for pulp and paper corporations all over the continent, a merchantable forest would reappear on its own. Finally, in 1935, lingering ill-will for the ex-Chief Forester broke through political tact when the department’s annual report attacked “well meaning but misinformed propagandists [who] have befogged the whole issue... by recommending and in some instances carrying on extensive programmes of planting.”³⁶ Selective cutting and replacement was an ideal practice for small landowners, as Otto Schierbeck had frequently pointed out, but it held few attractions for the big pulp companies. Similarly, when the Big Lease was renewed in the year after Schierbeck’s departure, his insistence on non-export conditions was conspicuously absent. In these ways, Creighton’s DLF (not alone in Canada) adhered to an American model that sought to cooperate with large corporate landowners for the same reason that their ideal remained state land ownership: a combination of the rights of ownership with enough capital to underwrite conservation and a presumed interest in steady, long-term returns.

The mid-1930s began another era in Nova Scotian government as well: the civil service era. The Civil Service Act of 1935 placed curbs on the patronage power of governments. With some security from capricious political interference, some better idea of what his rather vague role as Provincial Forester entailed, and more than a little skill in the politics of bureaucracy, Creighton was able to slowly build support for greater intervention in the practices of the forest sector. Future Acts would extend regulation and supervision over logging practices, albeit with dubious efficacy. That, however, is beyond the scope of this essay.

Conclusion

Nova Scotian forest conservation fell into several roughly distinct schools of thought between 1921 and 1935. According to Michael Freeden, it is in the nature of a contested ideology that certain core concepts be accepted by nearly all sides and others invested with a significance that seems undue to anyone outside the

³⁶ Province of Nova Scotia, *Report of the Department of Lands and Forests 1933* (Halifax: Minister of Public Works and Mines/King's Printer, 1934), 30. Province of Nova Scotia, *Report of the Department of Lands and Forests 1934* (Halifax: Provincial Secretary/King's Printer, 1935), 39. Province of Nova Scotia, *Report of the Department of Lands and Forests 1935* (Halifax: Provincial Secretary/King's Printer, 1935), 38.

struggle.³⁷ Here, the legacy of nineteenth-century European rationalism constitutes the core: none of the conservationists in this story came near to questioning notions of efficiency, waste, best use and full use, science as a way of knowing, and land and forest as commodity. Upon this foundation British imperial foresters built a model of conservation only modestly technocratic; the economic and logistical demands of empire simply precluded having enough well-trained Europeans on hand to police the land use of 200 million Indians. That pragmatism became a peripheral feature of the ideology exported to the rest of the world. In Nova Scotia, it became J.A. Knight's brand of conservation. Otto Schierbeck's traditional European conservation was far more intensely interventionist, statist, and more than a little chauvinist. Centuries of resource use on the continent had produced forests managed as closely as farmers' fields, with multiple thinning cuts and regular replanting efforts producing wood fibre at the fastest rate possible. Economically, European tree-farming made sense where labour was cheap and land dear, but that was not the case everywhere on Earth. Schierbeck, who eschewed Knight's pragmatism entirely, suffered the consequences of too strict adherence to the single outside model. Finally, American and central Canadian conservations bore greater similarities to each other than to the older imperial or European models. They were conservations born of North America's ecological affluence and history of European settlement, where land was as often free as cheap and labour was hard to keep at hand. Here was a more pragmatic relationship with the corporate landowner, echoing some aspects of the British imperial experience again, but with an uncomfortably novel balance of power in favour of the private freeholder, where so much forest land had been alienated from state ownership, as it had been in America. Perhaps to counter the same shift, North American conservationisms were technocratic in the extreme, and political skill and the ability to muster science to his side of a policy debate was the first attribute of a truly successful forester. The greatest distinction between the two lay in the economic nationalism of the Canadian conservationist, used in much the same manner that science was used to rally support and gain an upper hand in the contradictory, both intimate and antagonistic, relationship between bureaucratic and corporate political power. Wilfrid Creighton's conservationism was Nova Scotia's strongest move toward the North American continent, but he still fell between the classes, Canadian in his connections but faced with a US-style relationship with large landowners.

None of these should be read as descriptions of phases or periods in Nova Scotia's conservation history, because all overlapped in time to some extent. Different schools of thought found favour with different policy-makers and land owners. The international intellectual currents of conservation converged on Nova Scotia in the

37 Michael Freeden, "Eugenics and Ideology," *The Historical Journal* 26, no.4 (1983): 959-60.

1920s, and none of them could gain there the kind of hegemony that it enjoyed elsewhere at its peak. As a result, the contest among conservations left a particularly clear documentary record, where in other jurisdictions it disappears behind the dominance of an orthodoxy. For historians who desire to believe in a future (or present) in which forest conservation is real and effective, its failures in the past must be accounted as deviations from a single effective norm, and the kind of variety visible in the record of Nova Scotia's early conservation era is merely a symptom of severe deviation from the true path. But for those willing to accept the historical contingency of ideologies, that record is a valuable account of the ideological contests going on in Canada's forest industries and forest sciences in the early twentieth century.

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