Donald A. Macdonald – Canada's last Dominion Forester

by Kenneth Armson¹

ABSTRACT

The federal forest service, originating in 1899, began with Elihu Stewart as the chief inspector of timber and forestry and the title of Superintendent of Forestry; it grew to become the Dominion Forestry Branch. Until 1930 the main federal forest lands were in the western provinces where major agricultural settlement was taking place and the main priorities were fire protection and tree planting. In 1924, E.H. Finlayson a 1912 graduate in forestry became the first Dominion Forester; he was succeeded by D. Roy Cameron as the second Dominion Forester and when he left in 1947 Donald Angus Macdonald became the third and last Dominion Forester until his retirement in 1956. Macdonald's career bridged the early period of the federal forestry branch's activities of forest management and protection and into the post 1930s when the priorities were on research and the establishment of experimental forests. Following World War II Macdonald was instrumental in the crafting of the Canada Forestry Act of 1949, which led to the implementation of major provincial forestry activities such as forest inventories, regeneration and forest protection. It was followed by a succession of federal-provincial agreements, which have left an underpinning for forestry across the nation.

Keywords: federal forest service origin, Dominion Foresters, western federal forest lands, Forestry Branch, Canada Forestry Act

RÉSUMÉ

Le service forestier fédéral, dont l'origine remonte à 1899, a commencé avec la nomination d'Elihu Stewart à titre d'inspecteur en chef des bois et foresterie et désigné en tant que surintendant de la foresterie; le service a poursuivi son développement pour devenir la direction de la foresterie du Dominion. Jusqu'en 1930, la plupart des terres forestières fédérales se trouvaient dans les provinces de l'Ouest qui connaissaient alors une importante colonisation agricole et pour lesquelles les principales préoccupations résidaient dans la protection contre les feux de forêt et la plantation d'arbres. En 1924, E.H. Finlayson, un diplômé en foresterie de 1912, est devenu le premier forestier du Dominion; par la suite, D. Roy Cameron est devenu le deuxième forestier du Dominion et à son départ en 1947, Donald Angus Macdonald est devenu le troisième et dernier forestier du Dominion jusqu'à sa retraite en 1956. La carrière de Macdonald a couvert les premières années d'activité de la direction forestière fédérale en aménagement forestier et en protection des forêts, ainsi que celles qui ont suivi les années 1930 alors que les priorités ont porté sur la recherche et la création de forêts expérimentales. Macdonald a joué un rôle déterminant après la II^e Guerre mondiale dans l'élaboration de la loi sur les ressources forestières du Canada en 1949, qui a mené à l'implantation des principales activités forestières provinciales telle que l'inventaire forestier, la régénération et la protection des forêts. Elle a été suivie par une série d'ententes fédérales-provinciales qui ont permis d'établir les bases de la foresterie dans tout le pays.

Mots clés : origine du service forestier fédéral, forestiers du Dominion, terres forestières fédérales de l'Ouest, direction de la foresterie, loi sur les ressources forestières du Canada

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There is an apparent paradox within the forestry profession in Canada. Trained to deal with and manage forests over the long term and therefore make decisions that ultimately have historic consequences, foresters seem, publicly, to ignore in a formal sense the historic achievements of their professional predecessors. The biography of Arthur Herbert Richardson (Masterson 1992) is an example of such an achievement and there are historical

accounts of forest and resource-based corporate and government bodies but by and large the significance of contributions

by individual foresters has been largely ignored. Apart from the centennial history of the Faculty of Forestry at the University of Toronto (Kuhlberg 2009), a history of the federal forest service (Johnstone 1991) and most recently a biography of E.J. Zavitz by John Bacher (2001), the academic and journalist historians have largely eschewed this subject area. Whatever the reasons for this lack of attention, the coming to light of records by and about foresters from the past can and should provide the stimulus to address, partially, this deficiency. The present paper attempts to illustrate how the early experiences of a federal forester in Canada's western provinces led to his input into federal legislation that has had a most profound effect on forest practices throughout the country.

The origins of several Canadian forestry organizations lie in the second session of the American Forestry Congress, which was held in Montreal in August 1882. At this meeting great concern was expressed about the state of forests and the need to protect them; one of the speakers proposed that the

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governments of Canada and the United States each appoint a commissioner of woods and forests. Two years later J.H. Morgan was appointed to report on the protection of the dominion's forests. His report in 1889 contained a number of recommendations, including the need to train foresters. Ten years later Clifford Sifton became the Minister of the Department of the Interior and appointed Elihu Stewart, a Dominion Land Surveyor, as the chief inspector of timber and forestry. He gave Stewart the title of Superintendent of Forestry, and the chief inspector's office would soon grow into the Dominion Forestry Branch.

At that time most federal forest lands were in the western provinces where major settlement was also taking place; the main priorities of the new Branch were with fire protection and tree planting on the prairies. Stewart resigned in 1907 and was succeeded as the Branch's director by a colleague, R.H. Campbell, until 1923 when he resigned. E.H. Finlayson, a 1912 forestry graduate of the University of Toronto, was appointed the next year, and he thus became the first "Dominion Forester"; he was coincidentally the step-brother of William Finlayson, who became Ontario's Minister of Lands and Forests in 1926. E.H. Finlayson served as Dominion Forester until 1936 when he was succeeded by D. Roy Cameron, another forestry graduate from Toronto (1911). When Cameron left the Dominion Forest Service in 1947, Donald Angus Macdonald became Canada's third and last Dominion Forester.

Macdonald was a native of Saint John, New Brunswick, where he was born in 1892. His father, the master of one of the last three-masted wooden merchant ships at the turn of the nineteenth century, died when Donald was a small boy. Notwithstanding this loss, with the help of his extended family Donald entered the Faculty of Forestry at the University of New Brunswick, graduating in 1914 (Donald S. Macdonald, personal communication, 2012; Fig. 1).

He joined the Forestry Branch of the federal Department of the Interior and was sent to the Bow River Forest Reserve, based in Calgary. After the outbreak of World War I, he joined the Canadian Forestry Corps and was involved in timber harvesting

Fig. 1. Donald Angus Macdonald, B.Sc. F., University of New Brunswick, 1914. Photo courtesy of D.S. Macdonald.

in Scotland and northern England. In the last year of the war he transferred to the Royal Flying Corps, and qualified as a pilot. He was shot down on 27 May 1918 in a de Havilland 9 on a bombing raid to Bensdorf, Germany and spent the last six months of the conflict as a prisoner of war¹. On his return to Canada and the Forestry Branch, Macdonald was sent to Kamloops District, British Columbia; there he was primarily concerned with developing a forest fire protection system. It comprised a fire control plan, the construction of mountain lookout cabins and, perhaps most importantly, establishing the first seasonal training school for fire rangers in Canada (Johnstone 1991) in 1922.

From 1924 to 1928 Macdonald was stationed in Winnipeg. Although he was occupied with a wide range of tasks, his primary focus was fire protection. This entailed developing fire control plans and constructing fire towers. Training and supervising fire rangers were still major responsibilities, and in July 1925 he set up a training camp for them near Dauphin. The disposition of Crown timber and lands for settlement and the establishment and operation of tree seedling nurseries also took up a major portion of his time. As a result he frequently travelled throughout the forests of Manitoba, by road (gravel and bush), rail (train and speeder cars) and air. He had many contacts with the Royal Canadian Air Force staff at their bases in the central and northern parts of the province because of their engagement in aerial photography and fire spotting work.

The Royal Canadian Air Force was officially formed in 1924 and until 1936 was primarily involved in civil operations such as forest surveys and fire patrols. The aircraft used were those mainly adapted or designed for use on water. Three such aircraft were the Vickers Vedette (Fig. 2), Vickers Varuna (a twin engine and larger version of the Vedette), and the de Havilland Gipsy Moth equipped with floats. These were all open cockpit machines and from his diary it is clear Macdonald much preferred the Vickers aircraft as he wryly noted in October 1929 that, "moth planes unsatisfactory for rough water."

One of the period's major causes of forest fires was sparks from railway locomotives and knowledge of this brought him into contact with railway staff in order to check their fire prevention capabilities. On an inspection of The Hudson Bay Railway at The Pas in August 1924, for instance, he found that its fire organization was not functioning. He thus gave the local railway office a detailed listing of the requirements that had to be met. Also during his time in Manitoba he made regular trips to Norway House and the Berens River, initially in the boat "Wolverine" and in mid-1928 he flew in a Gipsy Moth, a journey he described as "rotten, dangerous.... very rough hazardous trip".

By 1929, he had been transferred to Ottawa (Fig. 3) as "fire protection specialist" while Finlayson was still the Director of the Forestry Branch. Donald's diaries from these early years chronicle how he was engaged in comprehensive field inspection tours from Manitoba to British Columbia. His comments—some light-hearted and others enlightened—provide insight into the daily workings of Forestry Branch staff at the ground level. For example, while in the Branch's Winnipeg office he learned how important keeping precise records was to the smooth functioning of the local bureaucracy. Because the

¹Wartime Diary, D.A. Macdonald

²This and subsequent personal descriptions and quotations by Macdonald are taken from his diaries, notes and correspondence for the period 1924 to 1957. These items are now in the archives of the University of New Brunswick, Fredericton, NB.

Fig. 2. Vickers Vedette in the Winnipeg airplane museum. Photo by K. Armson.

monthly living allowance for field staff was based on a monthly bill for “the exact amount of \$20”, according to Form 177, they had to falsify accounts to ensure their receipts added to this precise sum. He noted the unwise manner in which the government’s settlement policy was implemented in the field. While in Spruce Lake, Saskatchewan, he remarked on the many abandoned homesteads that had been opened up on lands that were “useless for agriculture”. Likewise, in Grande Prairie, Alberta he was unimpressed with the fire ranger operations. They had no fire map and as he put it, “This operation run by the RCAF almost entirely too much flying. Piling up hours must stop.” From Alberta he went on to British Columbia first to his old “stamping ground” of Kamloops and then to view a high-lead operation at Haney where he estimated there was 50 per cent

Fig. 3. Macdonald after his move to Ottawa. Photo courtesy of D.S. Macdonald.

waste resulting from the logging. He visited the Green Timbers nursery operations in New Westminster and in Vancouver the Wood Products laboratory before returning to Ottawa on October 10, having left on July 1.

At the time, Ontario was a provincial leader in forest fire operations and in September and October 1931 Macdonald visited with officials from Ontario’s Department of Lands and Forests, initially meeting with E.J. Zavitz in Toronto to discuss fire protection. He then travelled to many locations in central, northeastern and northwestern Ontario to view Ontario’s fire prevention capabilities. In North Bay he was particularly impressed by the wireless communication between three towers and the fire protection forester “who had a set in his office”.

After the western provinces took control of their Crown forest lands in the early 1930s, the Forestry Branch shifted its focus to research in silviculture and fire and this continued after D. Roy Cameron became the Dominion Forester in 1936. One aspect of this change was the establishment of experimental forest stations in several provinces, including Acadia in New Brunswick, Val Cartier in Québec, and Kananaskis in Alberta. The Petawawa station in Ontario had its origins in 1917 when the Forestry Branch had taken over the management of an area controlled by the Canadian military (Place 2002). In August 1930, Macdonald spent time at Petawawa organizing the construction of telephone lines in preparation for a range burning. This was to be the beginning of his sustained involvement with activities at Petawawa during the 1930s and ’40s.

With the onset of the depression the federal government initiated an “Unemployment Relief Program” and established work camps at a number of federal forestry stations, including

Fig. 4. Macdonald making a presentation to the Hon. Robert H. Winters, Minister of Resources and Development, 1950–1953, after the Canada Forestry Act. Photo courtesy of D.S. Macdonald.

Petawawa. Macdonald became involved with this program and in 1939 was given responsibility for the organization of the National Forestry Program for young unemployed men. This lasted only one season as a result of the outbreak of World War II, but there was an interesting cooperative aspect to this program; several provinces, including Ontario, became involved. This experience, together with his early years working in the western provinces, engendered in him a positive view on the potential for federal-provincial cooperation in Canadian forestry.

Events during and immediately after the second World War resulted in Macdonald being promoted to perform new tasks on both the domestic and international stages. During the war the Dominion Forester, D. Roy Cameron, was "loaned" to various other federal government organizations such as the Wartime Prices and Trade Board and the Department of Munitions and Supply; in 1946 he was seconded to C.D. Howe's Department of Reconstruction. The next year Cameron left to serve in the newly created Food and Agricultural Organization of the United Nations (FAO). During this period Macdonald acted as assistant Dominion Forester, so that in 1948, he became the third and last Dominion Forester and officially the Director of the Forestry Branch.

As Dominion Forester in the postwar period he set the direction for increased research both in silviculture and forest products. The Branch had already established an international reputation in fire research through the work of J.G. Wright and Herb Beal. In Kenneth Johnstone's (1999) history of the Service, he describes how "Macdonald was influential as Dominion Forester, and the Forestry Branch made important strides under his leadership. He appreciated political realities and knew how to use them. The Branch had not had such effective leadership since Campbell" (Fig. 4).

Perhaps the most significant outcome during his tenure as Dominion Forester had its origins in a 1943 report of the federal Sub Committee on Conservation and Development of Natural Resources, which was chaired by Dr. Wallace, Principal of Queen's University. Macdonald served as the Forestry Program Adviser to that Subcommittee. In this capacity he highlighted the importance of forests and the forest industry in Canada and amongst his many recommendations was one that stressed the need for joint projects between the federal government and the provinces. As already noted, his early experiences in the western provinces and the limited but important cooperation through the National Forestry Program in 1939 resonated with him. Some six years after the Wallace Report, Macdonald was involved in crafting new federal forestry legislation. It is clear from Macdonald's notes that he took advantage of the various pieces of legislation in the United States dealing with federal-state forestry assistance programs such as the Clarke-McNary Act. As he put it in a speech to the Canadian Lumbermen's Association in 1950, "We considered carefully the best features of these acts and the essential ones were combined in our own Canada Forestry Act." The Canada Forestry Act was passed in 1949. Johnstone, in his history of the federal forestry service, states that "The greatest of Macdonald's numerous achievements was the work that went into the framing of the Canada Forestry Act".³

This accomplishment garnered him an hon. LL.D degree in 1950 from his alma mater, the University of New Brunswick.

³13 George VI. Chap 8. An Act respecting Forest Conservation. [Assented to 10th December, 1949]

Upon receiving the honour, Macdonald was described as "the dean of Canadian foresters" and that "it was largely due to his individual efforts and persistence that the Dominion Forestry Bill was prepared". The implementation of this legislation enabled provinces to conduct forest inventories (in several provinces none existed before), forest regeneration including the construction of nurseries, forest protection (fires, insects and disease), silvicultural research, construction of access roads and many other related activities.

There was a succession of federal-provincial forestry agreements (FRDAs) over the next several decades, although their emphasis would change. The resulting achievements from these successive federal-provincial agreements were the essential underpinnings necessary for forest management to take place. Macdonald recognized this and in his last years he had an increased interest in improving forest management as shown in notes he made in December 1956, the year he retired: "... we do know the [sic] proper management can result in tremendous increases in current growth. We also know that by concentrating our efforts on the most promising [most productive areas] we can make every improvement count the cost. Action is not one of 'if' but 'how'. But the "how" for such management lay with the provinces not the federal service.

Macdonald's time as Dominion Forester saw him fully engage in forestry on the world stage representing Canada at many international meetings. In 1952 he was responsible for hosting the Commonwealth Forestry Conference in Canada with the Petawawa Forest Experiment Station and Algonquin Park serving as major tour locations for the conference. As Canada's forestry representative abroad he gained worldwide respect for Canadian forestry expertise in many areas, especially in forest inventory and protection.

As the last Dominion Forester, Macdonald's major legacy to Canadian forestry is manifold. He tapped his foresight and invested a huge effort to lay—through federal and provincial cooperation—the basic technical and professional foundation necessary for the provinces to carry out meaningful forest management.

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References

- Bacher, J. 2011.** Two Billion Trees and Counting. Dundurn Press, Toronto, ON. 264 p.
- Johnstone, K. 1991.** Timber and Trauma, 75 years with the Federal Forestry Service, 1899–1974. Forestry Canada, Ottawa. 194 p.
- Kuhlberg, M. 2009.** One Hundred Rings and Counting. University of Toronto Press, Toronto, ON. 334 p.
- Masterson, P. 1992.** Herbert Richardson. The Canadian Series, Fitzhenry & Whiteside, Markham, ON. 64 p.
- Place, I.C.M. 2002.** 75 Years of Research in the Woods, A History of the Petawawa Forest Experiment Station and the Petawawa National Forestry Institute. General Store Publishing House, Burnstown, ON. 205p. + illus.