While the fog is lifting from Schoodic Lake

Anglers, Fishers, and the St. Croix River

And the white trout are leaping for flies

Conflict in a Canadian-American Borderland, 1867–1900

It's exciting sport those beauties to take

Neil S. Forkey

Jogging the nerves and feasting the eyes.

Sportsmen figure prominently in American conservation history. But while sportsmen and sporting activities have been central to discussions of the evolution of nineteenth-century conservation law, their impact on rural destinations has not been fully investigated. This article looks at the St. Croix River Valley of New Brunswick and Maine to analyze the international response to a problem of resource property rights and inland fishery access. The St. Croix River Valley along the Canadian-American border demonstrates the difficulties of managing a shared environment.

Author James A. Tober analyzed the character of nineteenth-century wildlife management, positing that two groups interacted to create the matrix in which wildlife policy was developed: one group was the often urban-based, affluent sportsmen; the other group was the rural, seasonal market-hunters.[1] Unlike the market-hunters, sportsmen were well-organized, well-funded, and able to influence the legislative process. Their overall spending in local and state economies also translated into influence when wildlife statutes were both drafted and enforced.

In the Canadian-American context of the St. Croix River Valley, three governmental bodies administered natural resources. Until the late 1860s the individual provinces of New Brunswick, Nova Scotia, and Canada East and West (today Quebec and Ontario) controlled the fisheries within their borders. Although the 1867 entry of these provinces into the Canadian confederation brought control of their waters under federal jurisdiction, ownership of the fish remained with the individual provinces. This meant, for example, that while New Brunswick claimed the fish caught in its waters, the Ottawa government controlled the waters where the fish were caught. This division of responsibility did not apply in the United States, where states governed natural resources directly, and federal law influenced decisions only indirectly.

The infusion of sporting tourist capital into the St. Croix River Valley beginning in the 1860s created economic opportunities on many levels. Local merchants and hotel proprietors benefited from the increased patronage of visitors. The state and provincial treasuries of Maine and New Brunswick also profited by licensing sportsmen. However, not all valley residents realized an economic gain. Commercial fishermen who drew a seasonal income from trade in Atlantic salmon were gradually edged out of operation by an amalgam of vested interests. By the early-twentieth century legislation aimed at conserving fish stocks on the St. Croix and other regional waterways pushed such fishers to the margins of local prosperity.

A Borderland Economy

The St. Croix River, including Passamaquoddy Bay, is the easternmost boundary between the United States and Canada. Beginning as a trickle at Monument Brook in Aroostook County, Maine, and York County, New Brunswick, it flows seventy miles southeasterly through Washington County, Maine, and

An 1879 drawing showing Tidewater cities St. Stephen and Milltown, New Brunswick (foreground), the St. Croix River, and Calais, Maine. These towns were commercial sawmilling and shipping centers for the eighteenth- and nineteenth-century timber and lumber trade. Photo courtesy of Charlotte County Archives, New Brunswick.

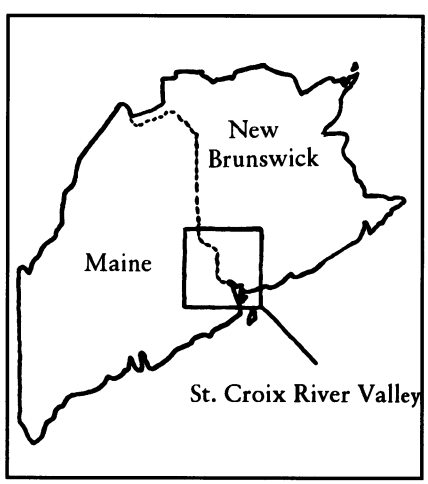
Charlotte County, New Brunswick, to its terminus at St. Andrews, New Brunswick, in the Passamaquoddy Bay. The river drains two large lake regions: the Chiputneticook Lakes and the Schoodic Lakes.[2] The river's watershed is the result of the Wisconsin glacier, whose path left a valley of boulders and jagged rocks along with thin, poor soil.[3] The area's climate, characterized by long, cold winters and short, warm summers, fostered the abundant white pine and spruce forests that fuelled eighteenth- and nineteenth-century timber and lumber trade. Tidewater towns such as Calais, Maine, and St. Stephen, New Brunswick, were commercial sawmilling and shipping centers for these valued staples.[4] Harold A. Davis, in his study of the St. Croix system, commented on the curious, harmonious nature of this "international community" where citizens on both sides of the river regularly crossed the border to work, attend school, and socialize.[5] The region has been a borderland community, jointly shared by two nations whose people have common social characteristics despite the political boundary between them.[6]

The natural amenities of the St. Croix River basin supported various forest industries during the eighteenth and nineteenth centuries. Timber squaring, shipbuilding, lumbering, and leather tanning provided employment for borderland citizens. The Crimean War in 1854 and the consequent cutoff of Baltic timber supplies accelerated British demand for New Brunswick pine and spruce, although this market plummeted with the peace two years later.[7] World overproduction, fluctuations in British imperial trade, and periodic recessions left the future of the forest trade in doubt.

Aware of the need both to diversify Canadian industry and create a home market, the Conservative government of Sir John A. Macdonald pursued an economic program that raised tariffs on American goods. Advent of the 1879 National Policy helped usher in a new phase of Canadian manufacturing. In St. Stephen and Milltown, New Brunswick, the National Policy either expanded existing manufacturing facilities or prompted new capital investment in such sectors as wood products, confectionery, soapmaking, and textiles.[8] Against this backdrop of industrialization the borderland economy sought to accommodate a tourist trade as well. Throughout the St. Croix system, from Vanceboro, Maine, to St. Andrews, New Brunswick, the tourist and sporting trade became an important feature of the local economy.[9]

The Sporting Culture and the St. Croix River Watershed

City dwellers and sportsmen visiting the St. Croix River Valley were part of a larger trend in nineteenth-century North America. The industrial age helped create a new leisure class who believed that outdoor recreation led to personal renewal and social regeneration.[10] Commentators cautioned Americans that the dangerously frantic pace of life would eventually take its toll on society. "All this marvelous progression," said the *Boston Herald*, "is exhausting to the finite being. . . mind and matter cannot endure constant friction without decay."[11] Other observers decried the ruinous activity of the industrial age, which "touched [everyone] in [the] universal hour of madness."[12] One popular volume recorded the conversation between a judge and a doctor after a day of salmon fishing. They lauded the benefits of nature, contrasting it with the "artificial" civilization to which they would soon return. The doctor recounted the number of men sick with stress and other physical maladies, which he attributed to life in the bustling cities. The judge believed:



Maine–New Brunswick borderland community, jointly shared by people who have common social characteristics despite the political boundary between them. Map provided by the author.

> We are as a people living at too rapid a rate; we are in the eager scramble for wealth and position . . . every effort should be made to promote and stimulate a taste for outdoor life, to encourage a love for athletic sports and endeavor to lead our overworked business men. . . to take an interest in such employment as the rod and gun will furnish. Anything that will lead them out into the woods and fields is to be commended . . . it will be upon this that the future longevity, the vitality of the race will depend.[13]

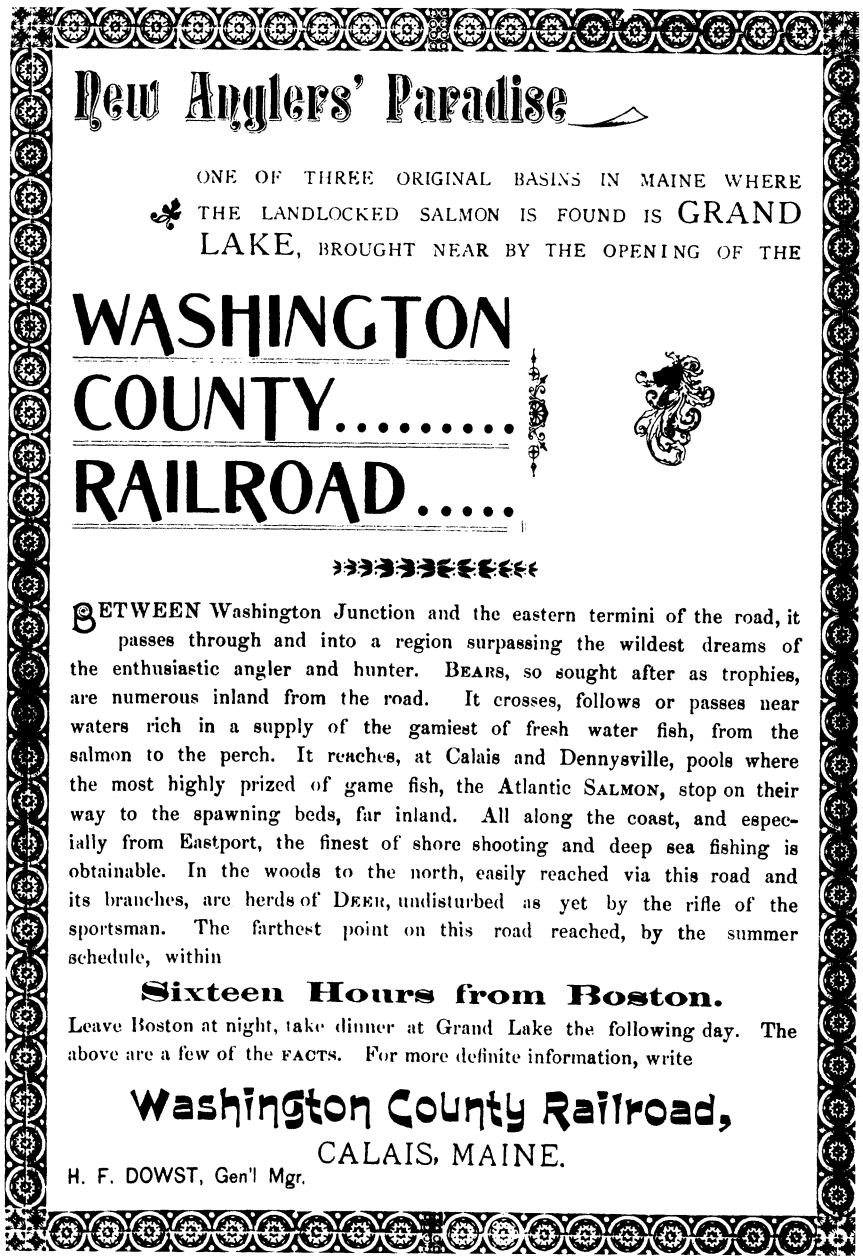
Responding both to the commercial-industrial needs of the valley and the desire of tourists to visit rural areas, the number of railway links grew. Between the early 1870s and late 1890s five of the region's major railway lines offered either direct or connecting service to the St. Croix River Valley. By 1871 the European and North American Railway was complete, linking St. Andrews (and consequently St. Stephen) to southern New England cities via the New Brunswick & Canada Railroad.[14] In 1880 key people from the Canadian Pacific Railway (CPR) acquired the New Brunswick & Canadian Railroad, and soon it was rumored that St. Andrews would become the CPR's east coast terminus. One of Canada's largest companies, the CPR used Vanceboro/McAdam as the junction between Sherbrooke, Quebec, and Fredericton and Saint John, New Brunswick. The 1887 connection at Riviere du Loup on the St. Lawrence River between the New Brunswick & Canadian Railroad and the Inter-Colonial Railway created further links to Quebec cities. The Grand Southern Railroad also made inroads to the St. Croix in 1883 by linking St. Stephen and Saint John.[15] By 1899 the Washington County Railroad connecting Boston and Calais offered travelers the opportunity to "leave Boston at night, [and 16 hours later] take dinner at Grand Lake, Maine the following day."[16]

In addition to rail service, steamships made scheduled trips to the St. Croix. The International Line between Boston and Saint John practically monopolized sea travel to the area during the nineteenth century.[17] On arrival, passengers billeted at hotels or lodges throughout the St. Croix River system. At the tidewater, St. Stephen boasted the Watson House, while across the river Calais establishments included the International Hotel and the St. Croix Exchange.[18] On the peninsula, St. Andrews hotels and cottages provided relaxing enjoyment for wealthy summer visitors.[19] Farther upriver, the Chiputneticook House in Vanceboro provided lodging.[20]

Maintaining a Shared Resource

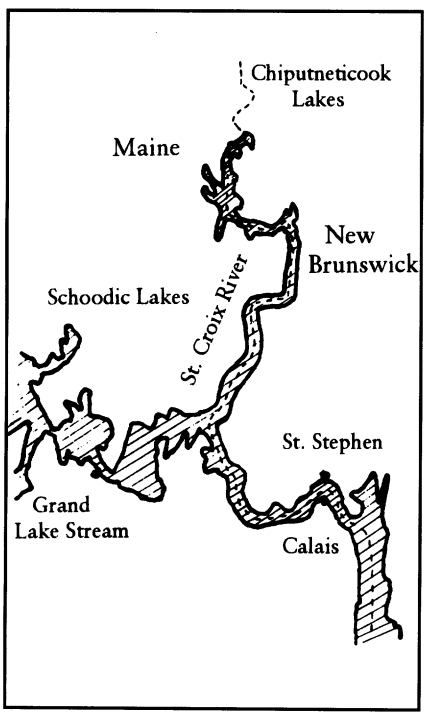
Increased regional tourism, coupled with the growing industrial ventures, influenced conservation policy along the St. Croix River. Anglers' demands for accessible and well-stocked fishing grounds assumed great importance to the governments of Maine, New Brunswick, and Canada. As the governing bodies of these three areas forged industrial policy during the late-nineteenth century, they also enacted laws that provided fishways on dams, controlled pollution, limited excessive fishing, and established pisciculture programs for artificial fish cultivation.[21]

Mill dams built to facilitate transportation for the logging and sawmilling business impeded the migration of



Railroads promoted regional tourism, as shown by this 1899 advertisement. Between the early 1870s and late 1890s five of the region's major railway lines offered either direct or connecting service to the St. Croix River Valley. Illustration provided by the author.

Atlantic salmon, shad, and alewives, which each spring travel upriver to propagate in the shallow waters leading to the Chiputneticook Lakes. These St. Croix streams were crucial for driving cut logs to tidewater mills, and the dams raised the spring water levels along the smaller brooks and upper reaches. Many dams were more than fifteen feet high and lacked fish passageways. This enabled people to lure or net the entrapped fish easily, taking only a couple of years to eliminate spawning fish.[22] Impassable dams and industrial pollution were blamed when the fish population eventually began to decline. New Brunswick's fisheries commissioner noted in 1852 that before the 1825 creation of the Union Dam, a man using only a dip-net once caught one hundred eighteen Atlantic salmon in a single day. By mid-century, however, only two hundred salmon comprised the entire annual catch.[23]



The St. Croix River drains two large lake regions: the Chiputneticook Lakes and the Schoodic Lakes. The river's watershed is the result of the Wisconsin glacier, whose path left a valley of boulders and jagged rocks along with thin, poor soil. Map provided by the author.

In its first attempt to ensure that companies installed fishways on the St. Croix, the Maine legislature in 1849 enacted a law allowing for the oversight of such passageways by a locally elected committee from Calais and neighboring Baring. The three-person body could recommend that passageways be installed and kept clear of saw and grist mill refuse, but it was not empowered to levy fines against violators.[24] Neither did the 1851 New Brunswick Fishery Act authorize fines for fishway violators, but the provincial act went farther than its Maine counterpart by prohibiting dumping of slabs, edgings, and rubbish other than sawdust.[25]

By the late 1860s the growing vacation trade compelled Maine legislators to ensure clean waterways. In 1867 the state appointed commissioners to oversee and introduce anadromous fish into its lakes and tributaries. To protect this investment, a subsequent act empowered commissioners to examine dams and order the erection of fishways.[26] As increasing numbers of anglers frequented Maine, penalties stiffened for violations of state anti-dumping laws. As part of an 1869 omnibus fisheries act, wardens appointed to specific fishery districts were empowered to collect fines ranging from ten dollars to fifty dollars from delinquent millowners. In addition, in 1871 the state explicitly prohibited dumping of any mill waste into the St. Croix River and imposed a penalty of up to fifty dollars on violators.[27]

Efforts to provide better navigation and fisheries protection on the river arose by the late 1870s. The state legislature singled out Calais and Baring mills as refuse-law violators, and imposed still more penalties.[28] On the Canadian side, New Brunswick's entry into confederation passed provincial control of the fisheries to federal hands. Parliament in 1873 acted to overturn the 1851 New Brunswick law that permitted sawdust dumping. To protect inland waterways, the new federal act made pollution from mills punishable by a twenty dollar fine for the first offense and fifty dollars for each repeat violation. Fishery officers had power to enforce the law.[29]

Commercial navigation was closely linked to tourism with steamships regularly carrying both passengers and cargo to port cities. This required large-scale channel dredging by the U.S. Department of War and the Canadian Department of Public Works to clear sawdust drifts several feet deep in the channel left by one hundred years of sawmill dumping practices. Eventually the local press complained that "[the sawdust] has nearly destroyed . . . navigation. . . . Once the St. Croix was one of the best fishing grounds in Eastern waters, but it is so no more."[30] So serious was the problem of sunken waste that heavy cargo ships, unable to ascend the estuary, docked almost five miles below the ports and rafted their freight upriver.[31] Steamships with drafts greater than 8½ feet often found themselves stranded for up to two hours on drifts of debris.[32] Despite these effects and the legal penalties, mills continued dumping refuse. Maine and New Brunswick millowners violated the laws because there was no single, joint statute regarding fishways and pollution. Out of frustration, the wardens and inspectors stopped pursuing violators on one side of the river because their counterparts on the other side often were not caught.[33]

Urban Markets and Food Fish

The latter half of the nineteenth century brought several changes to the rural St. Croix River Valley. The economic base of the Valley shifted from agricultural to industrial, the regional vacation trade's growth put a high value on a clean and accessible natural environment, and demand for fish as food by urban populations fostered the growth of a New Brunswick commercial fishery. Legislation restricted Maine fishing methods, so there was little commercial fishing on the state side of the river. State legislators and conservation experts reasoned that methods such as drift netting would deplete migratory fish. Not initially sharing this view, New Brunswick permitted drift netting.

Working-class populations in the newly crowded urban areas that

resulted from nineteenth-century industrialization needed a cheap and secure food source. This market was supplied by the abundant Great Lakes whitefish while the finer fresh Atlantic salmon went to more affluent households.[34] This demand led to intensified commercial fishing in the northern New England-Maritimes region, creating conflict with visiting recreational anglers. Soon problems arose with government conservation strategies. By the 1870s the traditional practice of taking fish and game for local, subsistence consumption gave way to large-scale, market-oriented activities and provided rural people with a seasonal income supplement. Technological advances facilitated the shipment of delicacies like salmon, duck, and venison to metropolitan areas. During the 1870s midwestern meat packers, principally Gustavus Swift, capitalized on the refrigerated boxcar, shipping products great distances.[35] This technological breakthrough, and the previous introduction of railroads to the St. Croix River Valley, encouraged the commercial exploitation of nature.[36]

The trade in fresh game illustrates the rhythm of rural life in the area west of the St. Croix.[37] The "Boston Market," destination of the region's products since the colonial era, provided a legitimate way for rural people to earn hard money, and encouraged market hunting. As with fresh game, the urban demand for finer fish increased during the latter half of the nineteenth century. The New Brunswick fishery responded to this demand. During the spring and summer, fishers drift netted the three-mile stretch between the Union Dam (at Milltown) and St. Stephen for Atlantic salmon, shad, and alewives. Three to four men per boat landed their catch, packed it in ice, and shipped overland in refrigerated boxcars (see table 1).

In addition to the commercial fishermen, there were also poachers. Unable to afford boats and other equipment associated with the fishery, poachers engaged unlawfully in fishing by spearing or netting fish that were beginning the upstream spring migration. Fishery overseers, anglers, and commercial fishers viewed poachers as a menace, and in 1876 commercial fishers received from the provincial inspector a licensing system to protect their trade.[38]

Table 1 Annual commercial catch in the St. Croix Fishery District, New Brunswick, 1878–1900.

Year	pounds of salmon packed on ice
1884	$3,905
1885	4,650
1878	2,500
1879	3,000
1880	2,600
1881	2,500
1882	4,000
1883	3,500
1884	4,800
1885	6,000
1886	5,000
1887	6,000
1888	5,000
1889	N/A
1890	N/A
1891	400
1892	525
1893	400
1894	500
1895	N/A
1896	600
1897	350
1898	600
1899	750
1900	750

Source: Department of Marine and Fisheries, Reports of the Inspector of Fisheries for the Province of New Brunswick, 1879–1901.

Regulating the Fishery

Successful regulation of poaching set a disastrous precedent for commercial fishermen. Lawmakers and conservationists who had legally eliminated an undesirable group of fishers set about enacting more restrictions. On both sides of the border after 1850 new laws imposed close times (the period when fishing was prohibited), dictated who could take fish and by what method, and restricted the commercial use of landed fish. From 1852–82 the increasing importance of the vacation trade to regional economies led to limits on commercial exploitation of inland fisheries. Statutes enacted from 1883–1900 terminated such exploitation and helped establish the primacy of recreational activities. During the earlier phase, weekly close times were imposed on the fisheries, usually from Saturday morning until Monday at sunrise. Working people consequently could not fish the St. Croix during their hours off work. The Maine and Canadian governments later instituted annual close times as more anglers frequented the watershed. Restrictions limited to 3½ months in Maine and five months in New Brunswick the months in which migratory Atlantic salmon and western branch landlocked salmon could legally be caught.[39]

In the context of this changing legal structure, regulations on the method of capture were also significant. Traditional methods of taking fish such as spearing, drift netting, seining, and in most cases weir fishing, were illegal on the St. Croix. However, angling—fishing with a hook, line, and artificial flies—was considered the "ordinary" way to fish, so anglers had a more accommodating open season. Conservation experts reasoned that traditional methods of capture hastened exhaustion of the region's valuable resources, jeopardizing the burgeoning vacation trade.[40] As indicated in table 1, the fishers for New Brunswick's small commercial salmon fishery enjoyed eleven years of stable catches until the early 1890s. Their good fortune might have continued longer if the Supreme Court of Canada had not in 1882 returned to the New Brunswick provincial government the power to lease provincial waterways for angling. In the precedent-setting case *Queen v. Robertson*, the Court conceded that neither the federal government nor its fisheries ministers could lease waterfront property to anglers. Only the provincial government could do this.[41] The decision freed provincial assemblymen, hoping to foster tourism, and private owners, eager to profit from their leased waterfronts, to shape provincial inland fishery policy without interference from Ottawa. Two years after the Supreme Court decision, the legislative assembly in Fredericton enacted a law permitting the lease of nontidal waters for up to five years. The law also gave exclusive access to rod and line anglers.[42]

That year angling leases accounted for $2,255 of the $3,905 in provincial revenue from commercial licensing and fines. By the end of the century, total revenue from leasing, licensing, and fines increased fourfold.[43] Buoyed by its success in leasing angling rights, the assembly tried more vigorously to promote tourism by pledging $3,000 annually to the trade's infrastructure, beginning the second transformative phase of resource use on the St. Croix (see table 2).[44]

Maine legislators, in an effort to eliminate fishing and hunting except by visiting sportsmen, passed several laws between 1883 and 1895 prohibiting the sale of fish and game. Concern for the state's nationally-known landlocked salmon prompted the legislature to outlaw transporting more than fifty pounds of salmon (Atlantic or landlocked). This law stymied poachers, unlicensed fishers on the Schoodic Lakes, and New Brunswick fishers who strayed onto the Maine side of the St. Croix channel.[45] Eventually, through laws preventing transportation of fresh fish (and meat) out of the region, Maine legislators effectively put such practitioners out of business. New Brunswick also pursued vacation profits, to such an extent that its St. Croix commercial fishery went out of business.

Table 2 Revenue collected from angling rights leases, commercial licenses, and fines in New Brunswick, 1884–1900.

Year	amount collected
1884	$3,905
1885	4,650
1886	4,078
1887	4,417
1888	7,625
1889	8,642
1890	N/A
1891	7,233
1892	6,634
1893	7,831
1894	8,333
1895	11,170
1896	10,696
1897	10,110
1898	11,511
1899	10,430
1900	12,015

Source: Department of Marine and Fisheries, Reports of the Inspector of Fisheries for the Province of New Brunswick, 1885–1901.

By addressing the concerns of vacationers, specifically sportsmen, regional conservation strategies recognized a more lucrative use of nature. Rather than regard fish and game as an exportable staple, officials viewed nature as a resource better left at home. This meant that rural small production efforts such as those in the St. Croix River Valley were buffeted by powerful forces of the modern tourist trade.[46] By the early 1890s the salmon stocks were depleted. Increased exploitation of the river fishery by greater numbers of anglers and commercial fishers combined with the ongoing problems of impassable dams and industrial pollution to bring a small-scale "fisherman's problem" to the St. Croix.[47] Intense exploitation of the fishery during open season by two competing groups—anglers and commercial fishers—practically destroyed the livelihood of the latter group through a greatly diminished catch.

Pisciculture in the St. Croix River Valley

The greatest achievement of Maine and New Brunswick fishery officials on the St. Croix and its tributaries was artificial propagation of landlocked and Atlantic salmon. The state undertaking catered solely to visiting sportsmen on the Schoodic Lakes, while Canadian overseers sought to replenish the entire river with young Atlantic salmon. A prized game fish, landlocked salmon was held dear by visiting anglers, who were fascinated and delighted by the network of lakes and tributaries.[48] Author and early champion of wildlife conservation Genio C. Scott's verse embodied this sentiment:

While the fog is lifting from Schoodic Lake

And the white trout are leaping for flies

It's exciting sport those beauties to take

Jogging the nerves and feasting the eyes.[49]

Connecting by train at the tidewater, anglers journeyed to Princeton, Maine, where they employed indigenous Passamaquoddy Indians as guides. The guides took the travelers to Grand Lake Stream and through the network of lakes, including Big Lake and West Grand Lake where salmon congregated during their upstream spring migrations. A dam made it difficult for the fish to ascend, and the stranded fish expedited angling. Maine limited artificial fish propagation to the Schoodic Lakes. In 1871 the Dobsis Club, a private sportsmen's organization comprised mostly of Bostonians, purchased land and built a hatching house on the lake. The club employed a year-round attendant who lived nearby and operated the hatchery. Club members funded the venture, with state assistance from fines levied against poachers.[50] In 1869 Maine Fish Commissioner Charles G. Atkins implemented plans for a separate hatchery at Grand Lake Stream. In 1872 the United States Fish Commission took over the operation.[51] Cultivating Schoodic salmon was a lengthy process. Anticipating the spawning season, the commissioners netted the fish, then divided them by gender. Female spawn and male milt were then mixed and the eggs placed in a tank with cool running water to simulate the turbulence of a natural stream. The hatched fry were then liberated into the clear, cold waters of Schoodic Lakes.[52]

The Grand Lake Stream hatchery was so successful that its eggs of Schoodic landlocked salmon were packed in freight cars and sent to other hatcheries in the Atlantic states, Michigan, Nebraska, Iowa, and California; one boat shipment went to Scotland.[53] In New Brunswick, the Canadian federal government operated two hatcheries: one east of the St. Croix on the Miramichi River; the other on the St. John River north of the Schoodic Lakes. From the late 1870s to the 1920s, hundreds of thousands of salmon fry from St. John were released annually into the headwaters of the St. Croix below Vanceboro.[54] The fry released by Canadian

officials could migrate south to the ocean (provided fishways were maintained), unlike those at Grand Lake Stream, which were purposely prevented from returning to the St. Croix by a series of dams and later screens.[55]

Conclusion

Nineteenth-century fishery conservation did not benefit all St. Croix River Valley citizens. Noble efforts to provide fishways and to curb pollution, as well as successful experiments in pisciculture were positive aspects of conservation programs, but there were other effects. By the early-twentieth century commercial fishing was illegal because it hampered the lucrative tourist trade that formed the new cornerstone of the local economy. People who had worked in the fish trade were forced to seek other occupations such as textile mill work, often affording them less autonomy. The St. Croix example illustrates the problems of managing a shared environment. The dilemmas of fishways and pollution faced by local overseers were not, for example, brought under joint administration until the early-twentieth century. The advent in 1909 of the International Joint Commission (IJC) between Canada and the United States established a permanent body to adjudicate international waterway disputes. Although not an original intention, the IJC has increasingly monitored pollution laws between the two nations.[56] Successful pisciculture experiments on both sides of the river illustrate the progressive era trend toward scientific responses to environmental problems. The idea that human manipulation of nature could both increase production and heighten efficiency was embodied in silviculture programs, irrigation schemes, and hydroelectric projects.[57] This confirms James Tober's assertion that nineteenth-century wildlife conservation policy was not made in the abstract. Often these policies were influenced by changes in North American society. For rural St. Croix River fishers, this meant that their immediate environment and notion of the riparian right of access were challenged by the changing social and legal frameworks of the industrial age.[58] The fishers' experience suggests the evolution of wildlife conservation law, successful from the urban perspective, may have been a failure from the rural perspective.

Notes

This paper is based on research from Neil S. Forkey, "St. Croix: An Environmental History of the Boundary Stream to 1923" (Master's thesis, University of Maine at Orono, 1990), and was presented at the 1991 meeting of the American Society for Environmental History. I thank Robert H. Babcock, Jacques Ferland, Richard W. Judd, David O. Percy, and Ljuba Cvetkovic for advice and assistance, and Lee Sochasky and Malcolm A. Redmond for their help as sources. The School of Graduate Studies and Research at Queen's University, Kingston, Ontario, provided financial assistance.

1. James A. Tober, *Who Owns the Wildlife? The Political Economy of Conservation in Nineteenth-Century America* (Westport, Connecticut: Greenwood Press, 1981). There is no study of the Canadian context.
2. Walter Wells, *The Water-Power of Maine: Hydrographic Survey of Maine* (Augusta, Maine: Sprague, Owen and Nash, 1869), p. 144.
3. Dean R. Snow, *The Archaeology of New England* (New York: Academic Press, 1980).
4. Charles T. Jackson, *First Report on the Geology of the Public Lands of the State of Maine* (Augusta, Maine: Smith and Robinson, 1837), p. 66; Ezekiel Holmes, *Second Annual Report Upon the Natural History and Geology of the State of Maine, 1862* (Augusta, Maine: Maine Board of Agriculture, 1863), p. 317. On the regional forest trade see Richard G. Wood, *A History of Lumbering in Maine, 1820-1861* (Orono: University of Maine Press, 1961); Philip T. Coolidge, *History of the Maine Woods* (Bangor, Maine: Furbush-Roberts Printing Co., 1963); David C. Smith, *A History of Lumbering in Maine, 1861-1960* (Orono: University of Maine Press, 1972); Graeme Wynn, *Timber Colony: A Historical Geography of Early Nineteenth Century New Brunswick* (Toronto, Ontario: University of Toronto Press, 1981); Richard W. Judd, *Aroostook: A Century of Logging in Northern Maine* (Orono: University of Maine Press, 1989).
5. Harold A. Davis, *An International Community on the St. Croix (1604-1930)* (Orono: University of Maine Press, 1974), pp. 287-307.
6. See Lauren McKinsey and Victor Konrad, *Borderlands Reflections: The United States and Canada* (Orono, Maine: Borderlands Project, 1989), pp. 2-6.
7. Davis, *An International Community*, p. 149.
8. "The Report of Edward Willis on the Manufacturing Industries of Certain Sections of the Maritime Provinces," *Sessional Papers*, 1885, no. 37, pp. 58, 111-13. See also T. W. Acheson, "The National Policy and the Industrialization of the Maritimes, 1880-1910," *Acadiensis* 1 (Spring 1972): 3-28; Peter DeLottinville, "The St. Croix Cotton Manufacturing Company and Its Influence on the St. Croix Community, 1880-1892" (Master's thesis, Dalhousie University, 1979); Peter DeLottinville, "Trouble in the Hives of Industry: The Cotton Industry Comes to Milltown, New Brunswick, 1879-1892," *Historical Papers/ Communications Historiques* (Ottawa, Ontario: Canadian Historical Association, 1980), pp. 100-15.
9. *Maine Sportsman* 6 (March 1899): 12-13, 18-19. See also *Maine Sportsman* 3 (October 1895): 17; 3 (July 1896): 17; 3 (August 1896): 19; 4 (September 1896): 19; 4 (July 1897): 15-16; 6 (June 1899): 10, 17; 6 (August 1899): 17. For New Brunswick see Grace Helen Mowat, *The Diverting History of a Loyalist Town* (St. Andrews, New Brunswick: Charlotte County Craft, 1932), pp. 125-29, 134-35; Davis, *An International Community*, pp. 266-67; Willa Walker, *No Hay Fever and a Railway: Summers in St. Andrews, Canada's First Seaside Resort* (Fredericton, New Brunswick: Goose Lane Editions Limited, 1989).
10. This idea is developed further by Donald J. Mrozek, *Sport and American Mentality, 1880-1910* (Knoxville: University of Tennessee Press, 1983), pp. 19-23, 182-88. See also John F. Reiger, *American Sportsmen* (New York: Winchester Press, 1975), p. 27; Richard Judd, "Reshaping Maine's Landscape: Rural Culture, Tourism, and Conservation, 1890-1929," *Journal of Forest History* 32 (October 1988): 183-84. For Canada see "Sport and Sportsman," *Canadian Sportsman and Naturalist* 2 (January 1882): 99-100, and "The Influence of Sport," *Canadian Sportsman and Naturalist* 2 (January 1882): 100.
11. Quoted in Edward A. Samuels, *With Rod and Gun in New England and the Maritime Provinces* (Boston, Massachusetts: Samuels and Kimball, 1897), p. 26.
12. Samuels, *With Rod and Gun*, p. 26.
13. Samuels, *With Rod and Gun*, pp. 24-26. Another example of elite ambivalence toward the industrial age is Arthur G. Potter, *The 1907 Hunt of the Forest City Hunting Club in the Wilds of Northern Maine* (Cleveland, Ohio: Privately published, 1908), p. 37. Potter, a journalist from New York City and a member of the club, recounted the 1907 pilgrimage that doctors, industrialists, jewelers, and entrepreneurs made from their homes in Cleveland, Ohio. One member, Mr. F. Pierce, equated nature's solitude with fond memories of his childhood: "[I] arose at 6:30 a.m. . . . it was a perfect day . . . [I] started out for a hunt alone . . . walked slowly lost in thought, looking back to boyhood days in

the adventures and incidents of my past life. How happy one is when alone with Nature."

14. Davis, *An International Community*, p. 216. For a detailed description of the European and North American Railway route see Robert H. Babcock, "Economic Development in Portland (M.E.) and Saint John (N.B.) During the Age of Iron and Steam, 1850-1914," *American Review of Canadian Studies* 9 (Spring 1979): 7. For the various connections made at McAdam Junction see W. A. Redstone, *The History of McAdam (1871-1977)* (Fredericton, New Brunswick: Centennial Litho and Print Limited, 1979), p. 94.

15. Davis, *An International Community*, p. 257.

16. *Maine Sportsman* 6 (March 1899): 2.

17. Arthur L. Johnson, "The International Line: A History of the Boston–Saint John Steamship Service," *American Neptune* 33 (April 1973): 80.

18. Moses F. Sweetser, ed., *The Maritime Provinces: A Handbook for Travelers. A Guide to the Chief Cities, Coasts, and Islands of the Maritime Provinces of Canada, and to Their Scenery and Historic Attractions; with the Gulf and River of St. Lawrence to Quebec and Montreal; also, Newfoundland and the Labrador Coast* (Boston, Massachusetts: James R. Osgood and Company, 1875), p. 35.

19. Moses F. Sweetser, ed., *The Maritime Provinces: A Handbook for Travelers. A Guide to the Chief Cities, Coasts, and Islands of the Maritime Provinces of Canada, and to Their Scenery and Historic Attractions; with the Gulf and River of St. Lawrence to Quebec and Montreal; also, Newfoundland and the Labrador Coast* (Boston, Massachusetts: Houghton, Mifflin, and Company, 1890), p. 33; Charles A. J. Farrar, "A Sportsman's Paradise," *Sportsman and Tourist* 2 (March 1892): 94; Mowat, *The Diverting History*, pp. 134-35; Davis, *An International Community*, pp. 266-67; Walker, *No Hay Fever and a Railway*.

20. Sweetser, *The Maritime Provinces*, 1875, p. 38.

21. For general overviews see Richard R. Wescott, "Early Conservation Programs and the Development of the Vacation Industry in Maine, 1865-1900," *Maine Historical Society Quarterly* 27 (Summer 1987): 2-13; Theodore S. Fellows, *New Brunswick's Natural Resources: 150 Years of Stewardship* (Fredericton: New Brunswick Department of Natural Resources and Energy, 1988), pp. 45-74.

22. Richard Lewes Dashwood, *Chiploquorgan; or, Life by the Camp Fire in Dominion of Canada and Newfoundland* (Fredericton, New Brunswick: Saint Annes Point Press, 1979), p. 7; Wynn, *Timber Colony*, p. 64.

23. Moses H. Perley, *Report on the Sea and River Fisheries of New Brunswick* (Fredericton, New Brunswick: J. Simpson, 1852), pp. 124-25; Moses H. Perley, *Three Descriptive Catalogues of the Fishes of New Brunswick and Nova Scotia* (Fredericton, New Brunswick: J. Simpson, 1852), pp. 123-25.

24. *Public Laws of Maine* (hereafter *PLM*) (Augusta, Maine, 1850), chapter 257.

25. Perley, *Reports on the Sea and River*, pp. 291-93. Perhaps realizing the importance of the lumber industry at mid-century, the provincial legislature exempted the mills from sawdust dumping.

26. *PLM*, "Resolves," 1867, chapter 78; *PLM*, 1868, chapter 185.

27. *PLM*, 1869, chapter 70; *PLM*, 1871, chapter 677.

28. *PLM*, 1879, chapter 168.

29. Canada, *Acts of Parliament, 1873*, Victoria 36, cap. 65.

30. *St. Croix Courier* (St. Stephen, New Brunswick), 13 July 1876, p. 2. For a comparison see Gilbert Allardyce, "The 'Vexed Problem of Sawdust': River Pollution in Nineteenth Century New Brunswick," *Dalhousie Review* 52 (1972): 177-90; R. Peter Gillis, "Rivers of Sawdust: The Battle Over Industrial Pollution in Canada, 1865-1903," *Journal of Canadian Studies* 21 (Spring 1986): 84-103.

31. "Letter from the Secretary of War, Transmitting Reports Upon the Resurvey and Preliminary Examination of Saint Croix River, Maine," 51st Cong., 1st sess., H. Doc. 89, pp. 4-5. See also "Letter from the Secretary of War, Transmitting, with a Letter from the Chief of Engineers, Report of Survey of St. Croix River, Below Calais, Between Maine and New Brunswick," 55th Cong., 1st sess., H. Doc. 55; "Reports of the Minister of Public Works of the Dominion of Canada, 1903–1924," *Sessional Papers*.

32. "Letter from the Acting Secretary of War, Transmitting, with a Letter from the Chief of Engineers, Reports on Examination and Survey of St. Croix River, Maine, At and Near Calais," 61st Cong., 2d sess., H. Doc. 748, pp. 7-8. Near the beginning of the twentieth century new industries such as pulp and paper polluted Maine waterways with poisonous chemicals. In 1891 state legislators passed a law prohibiting defiling Maine waterways (*PLM*, chapter 82). Violators could be fined up to $1,000 or imprisoned for one year, and made to pay triple damages. However, complainants had to prove "knowing and wilful" intent to pollute.

33. For examples of the New Brunswick inspectors' complaints, see Department of Marine and Fisheries, *Reports of the Inspector of Fisheries for the Province of New Brunswick* (hereafter DMF *Annual Report*), 1870-81, in *Sessional Papers* (Augusta, Maine).

34. *Maine Sportsman* 3 (March 1896): 19; Donald J. Pisani, "Fish Culture and the Dawn of Concern over Water Pollution in the United States," *Environmental Review* 8 (Summer 1984): 119. Richard W. Judd, "Searching for the Roots of the Conservation Movement: Fish Protection in New England, 1865-1900," in Richard E. McCabe, ed., *Transactions of the Fifty-Seventh North American Wildlife and Natural Resources Conference* (Washington, D.C.: Wildlife Management Institute, 1992), p. 719; Reiger, *American Sportsmen*, p. 27.

35. Pisani, "Fish Culture," p. 118; Glen Porter, *The Rise of Big Business, 1860-1910* (Arlington Heights, Illinois: Harlan Davidson, 1973), pp. 47-48; Richard O. Cummings, *The American and His Food: A History of Food Habits in the United States* (Chicago, Illinois: University of Chicago Press, 1941), pp. 59-64; Oscar Edward Anderson, Jr., *Refrigeration in America: A History of a New Technology and its Impact* (Princeton, New Jersey: Princeton University Press, 1953), pp. 14, 175-77; Joseph M. Petulla, *American Environmental History: The Exploitation and Conservation of Natural Resources* (San Francisco, California: Boyd and Fraser, 1977), p. 214; Harvey A. Levenstein, *Revolution at the Table: The Transformation of the American Diet* (New York: Oxford University Press, 1988), pp. 15, 19, 31.

36. Maine Fisheries and Game Commission, *Annual Reports*, (Augusta, Maine, 1877, 1882, 1860).

37. See Edward D. Ives, *George Magoon and the Down East Game War: History, Folklore, and the Law* (Urbana: University of Illinois Press, 1988), p. 284.

38. DMF *Annual Report*, 1876, p. 252. On poachers see *Maine Sportsman* 3 (July 1896): 8.

39. *PLM*, 1867, chapter 304; *PLM*, 1868, chapter 174; *PLM*, 1869, chapter 70; *PLM*, 1872, chapter 4; *PLM*, 1874, chapter 157; *PLM*, 1874, chapter 592; *PLM*, 1876, chapter 125; *PLM*, 1878, chapter 75; *PLM*, 1879, chapter 168; *PLM*, 1880, chapter 187; Perley, *Report on the Sea and River*, pp. 291-94.

40. Perley, *Report on the Sea and River*, pp. 291-94. For Maine's response to Perley's suggestion, see *PLM*, 1868, chapter 174; *PLM*, 1869, chapter 70; *PLM*, 1870, chapter 171; *PLM*, 1874, chapter 247. On weir close times see *Maine Sportsman* 6 (May 1899): 17. A weir is an enclosure of stakes with nets attached to capture fish.

41. "Queen v. Robertson," *Reports of the Supreme Court*, vol. 6 (Ottawa, Ontario: Queen's Printer, 1882), pp. 52-143. For arguments favoring New Brunswick control of the fishery see "Canadian Fishery Leases," *Canadian Sportsman and Naturalist* 1 (July 1881): 53-54; "Leasing Salmon Rivers—The People's Right," *Canadian Sportsman and Naturalist* 2 (February 1882): 107; "Departmental Blunders," *Canadian Sportsman and Naturalist* 2 (October 1882): 174.

42. New Brunswick, *Acts of the General Assembly*, 1884, Victoria 47, cap. 1. An 1893 amendment extended the leases up to ten years (Victoria 56, cap. 12).

43. DMF *Annual Report*, 1885, p. ix; Fellows, *New Brunswick's Natural Resources*, p. 66.

44. New Brunswick, *Acts of the General Assembly*, 1898, Victoria 61, cap. 8.

45. *PLM*, 1883, chapter 144. See also *PLM*, 1891, chapter 66; *PLM*, 1895, chapter 31.

46. Maine Inland Fish and Game Commission (hereafter IFGC), *Annual Report*, 1893-1894 (Augusta, Maine: State Printer, 1894), p. 18; IFGC, *Annual Report*, 1900, pp. 10-13; IFGC, *Annual Report*, 1907, p. 18.

47. The concept has been advanced by Arthur F. McEvoy, *The Fisherman's Problem: Ecology and Law in the California Fisheries, 1850-1980* (Cambridge, England: Cambridge University Press, 1986).

48. A sample can be found in *St. Croix Courier*, 2 June 1870, p. 2; John R. Hamilton, *New Brunswick and Its Scenery. A Tourists' and Anglers' Guide to the Province of New Brunswick* (Saint John, New Brunswick: J. and A. McMillan, 1874), pp. 134-35; Charles Hallock, *The Sportsman's Gazetteer and General Guide. The Game Animals, Birds and Fishes of North America: Their Habits and Various Methods of Capture. Copious Instructions In Shooting, Fishing, Taxidermy, Woodcraft, etc.. Together with a Glossary, and a Directory to the Principal Game Resorts of the Country; Illustrated with Maps*, part I (New York: Orange Judd Company, 1883), pp. 305-307.

49. Quoted in Sweetser, *The Maritime Provinces*, 1875, p. 36.

50. See *PLM*, 1883, chapter 130.

51. *St. Croix Courier*, 22 August 1878, p. 2; Minnie Atkinson, *Hinckley Township or Grand Lake Stream Plantation* (Newburyport, Massachusetts: Newburyport Herald Press, 1920), p. 91.

52. United States Commission of Fish and Fisheries, *Annual Reports*, 1873-85.

53. *St. Croix Courier*, 19 March 1879, p. 3; *Bangor Daily Whig and Courier*, 29 December 1880, p. 1; United States Commission of Fish and Fisheries, *Annual Report*, 1883, p. 1012.

54. DMF *Annual Reports*, 1877-1924; *Maine Sportsman* 4 (August 1897): 15; 5 (August 1898): 17.

55. IFGC, *Annual Report*, 1922, p. 8; IFGC, *Annual Report*, 1924, pp. 7, 23; International Joint Commission, *St. Croix River Fishways in the Matter of the Application of the Commissioner of Inland Fisheries and Game for the State of Maine for the Erection and Repair of Fishways in the St. Croix River* (Washington, D.C.: Government Printing Office, 1924), pp. 44-53.

56. → Joseph T. Jockel and Alan M. Schwartz, "The Changing Environmental Role of the Canada-United States International Joint Commission," *Environmental Review* 8 (Fall 1984): 236-51.

57. See Samuel P. Hays, *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890-1920* (Cambridge, Massachusetts: Harvard University Press, 1959). Various aspects of the approach to natural resources in a Canadian context are discussed in H. V. Nelles, *The Politics of Development: Forests, Mines, and Hydro-Electric Power in Ontario, 1849-1941* (Toronto, Ontario: University of Toronto Press, 19 → Bruce W. Hodgins, Jamie Benidickson, and Peter Gillis, "The Ontario and Quebec Experiments in Forest Reserves, 1883-1930," *Journal of Forest History* 26 (January 1982): 20-33; R. Peter Gillis and Thomas R. Roach, *Lost Initiatives: Canada's Forest Industries, Forest Policy, and Forest Conservation* (West-port, Connecticut: Greenwood Press, 1986).

58. Morton J. Horwitz, *The Transformation of American Law, 1780-1860* (Cambridge, Massachusetts: Harvard University Press, 1977) traces this trend to mid-century.