

## FISHERIES

### Atlantic Salmon Restoration

Since 1993, the Commission has delivered an innovative program to maintain and restore the St. Croix's Atlantic salmon run. In 2003-2004, it continued to monitor the outcome of an adult stocking experiment that was conducted in partnership with US federal and state agencies. It also reared and released nearly 20,000 juvenile St. Croix salmon into selected river habitat where they can grow, then go to sea and return as adults.

While the salmon run is small (no more than 20 fish annually in the last five years), it is one of the few remaining active runs in the region and provides valuable research data for salmon restoration efforts on other Maine and New Brunswick rivers.



*The Commission works with fisheries agencies and non-governmental organizations to survey juvenile Atlantic salmon and other fish stocks in the St. Croix River.*

### Monitoring Migratory Fish Stocks

The Commission operates a fisheries research trap at the Milltown Dam, at head of tide, to supply governments on both sides of the border with accurate information on migratory fish stocks. Commission staff count Atlantic salmon, gaspereau (alewife), and other fish here from May to October.

### Alewife and Smallmouth Bass Research

The Commission and five fisheries agencies serve on a scientific committee to guide research on the interaction of alewives (a sea-run fish) and smallmouth bass (an important game species) in the mid-section of the St. Croix system. In 2004-2005, this project is compiling existing fisheries data and conducting new field research to supply scientific information that may help governments to resolve a current impasse in the international management of these fishery resources.

The initial findings of this study will be available in 2005.

### Softshell Clam Research

Increased nutrient runoff and warmer water temperatures have caused the green algae *Enteromorpha* to become more common on coastal beaches in the region. In some areas, these algal mats become so thick that they can suffocate intertidal species on the beaches, including the commercially-important softshell clam.

In 2004, in cooperation with New Brunswick, the Commission undertook a pilot project to study this phenomenon. While conditions for algae growth were poor that summer, the study did show that the presence of a limited amount of algae appeared to benefit intertidal species. Further work is needed to determine what quantity is most beneficial and to investigate whether the algae may have commercial harvesting potential if its removal should be warranted.

## INFORMATION

### Information Services

Each year, the Commission responds to more than 1,800 inquiries from waterway users, residents, businesses, agency personnel, legislators, teachers and others interested in aspects of the St. Croix waterway and its management.

It also issues summaries of its fisheries and water research, including seasonal fish counts, and distributes a variety of informational materials including a waterway brochure, a recreation map and publications on various heritage and resource topics.

### Presentations

In 2003-2004, the Commission delivered over 30 presentations to conferences, municipal councils, school groups and resource planners. This included major presentations to audiences in three states and three provinces.

## FINANCE & ADMINISTRATION

The Commission receives its core operating funds from the Province of New Brunswick and the State of Maine, averaging \$25,000 annually from each. These support a part-time program staff that solicit additional grants, donations and contracts to deliver many of the Commission's mandated activities.

During 2003-2004, the Commission had an average annual income of \$359,000 Canadian (\$268,900 US), not including in-kind contributions. In both years, expenditures exceeded revenues, due primarily to a sharp decline in the US/Canada currency exchange rate in 2003 and a one-time expenditure to produce the new waterway map in 2004. This deficit position was offset from a small operating surplus from previous years. The Commission is actively seeking new ways to increase charitable donations and other funding to be able to continue its work.

In 2003-2004, the Commission spent 96% of its revenues on programs and 4% on administration

## ACKNOWLEDGEMENTS

The Commission gratefully acknowledges the many individuals, organizations and agencies that support its work. Listed alphabetically for 2003-2004:

**Program funding.** Chiputneticook Lakes

International Conservancy, Domtar Industries Inc., J.D. Irving Ltd., Human Resources Development Canada, International Joint Commission, NB Dept. of Natural Resources, NB Environmental Trust Fund, NB Wildlife Trust Fund, ME Community Foundation, ME Dept. of Conservation, ME Dept. of Marine Resources, ME Outdoor Heritage Fund, St. Anne-Nackawic Pulp Company Ltd., State of Maine, US National Marine Fisheries Service and individual donors. Special thanks go to the many community organizations and businesses that helped to fund St. Croix 1604 trunks for the region's schools.

**In-kind assistance.** Domtar Industries Inc., Environment Canada, Fisheries & Oceans Canada, Moore-Clark Ltd., NB Dept. of the Environment & Local Government, NB Dept. of Natural Resources, NB Dept. of Transportation, NB Power Corporation and volunteers in our water monitoring, outdoor recreation, Devil's Head Conservation Area and fisheries programs.

Thank you all. We invite new partners at any time. Please contact us.

## THE COMMISSION IN 2003-2004

**Commissioners:** Frank Carroll (McAdam, NB) *to November 2004*, Ken Gordon\* (Baileyville, ME), Carolyn Leavitt (St. Andrews, NB) *to November 2003*, Brand Livingstone (Calais, ME), Tom Moffatt\* (Dufferin, NB), Gary Stairs (Green Mountain, NB), Donald Soctomah (Indian Township, ME), Dale Wheaton (Forest City, ME) \* Serving as co-chairs

**Government Liaisons:** Eric Hadley (New Brunswick - Department of Natural Resources), David Soucy (Maine - Department of Conservation)

**Federal Observers:** Jean-Guy Deveau (Canada - Environment Canada), United States observer (vacant)

### Staff:

**Programs:** Lee Sochasky (Executive Director), Marilyn Moore (Administrative Assistant).

**Senior field staff:** David McLean (Senior Fisheries Technician), Mel Weeks (Recreational Facilities Manager), Dennis Blair (Assistant Recreational Facilities Manager).

**Term staff:** Verna Crossman (Programs 2003), Nicole Grant (Recreation 2004), Luke Johnson (Recreation 2003), Lisa Mackey (Recreation 2003), Michelle McCray (Programs 2004), Kelli Mitchell (Recreation 2003), Josh Moore (Recreation 2004), Frank Parent (Fisheries/Recreation 2004), Bruce Richardson (Recreation 2004), Kim Robichaud (Fisheries 2003, Clam Study 2004).

**Current publications:** (free unless postpaid prices are listed)

St. Croix International Waterway heritage brochure, St. Croix International Waterway Recreation Map (\$8US, \$10Cdn), St. Croix International Waterway Management Plan (\$5US, \$6Cdn), St. Croix boundary waters recreational fishing guide, annual St. Croix anadromous fisheries report (specify year).

**The St. Croix International Waterway Commission was established by the governments of New Brunswick and Maine to coordinate the delivery of an integrated management plan for the resources and uses of the St. Croix boundary corridor. The Commission is a charitable, not-for-profit organization that provides tax deductible receipts for Canadian and American donations. For more information on the Commission and its work, please contact us.**



### ST. CROIX INTERNATIONAL WATERWAY COMMISSION

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# St. Croix International Waterway Commission

## 2003 – 2004 Biennial Report

**On March 30, 2003, Maine Governor John Baldacci stood before an audience of St. Croix residents, conservationists and government officials to announce the acquisition of 50 miles of undeveloped shoreline on Spednic Lake and the upper St. Croix River. He held aloft a letter from New Brunswick Premier Bernard Lord that cited the significance of fourteen years of collective, cross-border effort to conserve a very unique section of international waterway.**

**Realizing this vision is just one of the remarkable achievements of the St. Croix International Waterway's longterm management plan and the Commission that delivers it. We invite you to review our progress in 2003 and 2004.**



*Devil's Head, a 315-acre conservation area established by the Commission and the City of Calais, Maine.*

## LAND CONSERVATION

### Spednic Lake/Upper St. Croix River Protection

Maine's acquisition in 2003 of what Governor Baldacci called "the most beautiful spot in the world" culminated efforts by area residents, conservation groups and state and provincial governments to permanently protect the longest undeveloped section of boundary water in Eastern North America.

For 14 years the St. Croix International Waterway Commission has served as a catalyst, facilitator and

partner in a series of transactions that have protected over 170 miles of shoreline and nearly 200,000 acres of forest along the St. Croix waterway in New Brunswick and Maine. The goal — to conserve essential habitat for rare and threatened species and to preserve the area's renowned traditional recreational heritage — has been largely achieved.

The Commission continues to work with public and private interests to protect additional lands within this special corridor and to ensure that all of these are managed to meet international conservation goals.

### Devil's Head Conservation Area

Devil's Head, on the St. Croix estuary, is the highest coastal headland in Downeast Maine. This stunning promontory is home to ospreys, eagles and a remarkable range of native trees and wildlife. The 315-acre property has over a mile of tidal waterfront and an exceptional mountaintop view of the international coastline.

But its future was uncertain. Divided into five parcels, some already for sale, this landmark seemed destined for residential development.

Over two years, the Commission raised nearly \$400,000 to enable the City of Calais and the State of Maine to acquire and consolidate the five parcels and to develop access for low-impact recreation. It also organized volunteers to invest more than 1000 hours in building a 1.3-mile trail to the mountain's peak and beach.

Devil's Head, with its view of the estuary and St. Croix Island (see Heritage section) and its access to upland and beach habitats, exemplifies the region's outdoor heritage. The site also offers opportunities for nature interpretation, outdoor skills training and woodlot management for wildlife.

This coastal landmark is now preserved for the public to enjoy.

## HERITAGE & ECONOMY

### Ste-Croix 2004: A World Celebration

In 1604, French explorers sailed into a river they named "Sainte Croix" to establish one of the first permanent European settlements in the New World. This early colony prepared the French for the exploration and settlement of much of eastern and central North America, and established a French heritage that remains an integral part of North America's cultural identity. Saint Croix Island, where the French built their first colony, is now an International Historic Site shared by the United States and Canada.

The St. Croix's Maine and New Brunswick communities faced major challenges to host the 400th anniversary of this settlement in 2004. Preparations began in 1995, at a workshop sponsored by the Commission, and were pursued by a committee formed by the Commission that brought together municipal, business, heritage and government representatives from both countries to plan and deliver the commemoration.

The Ste-Croix 2004 Committee hosted 10 days of commemorative events in June 2004, attended by heads of state, senior government delegations and over 47,000

visitors. It also worked with governments to recognize the anniversary on a wider scale through educational activities, stamps, minted currency and special publications. In addition, it gave overdue recognition to the role of aboriginal people in aiding the French to adapt to a new life in unfamiliar surroundings.



*After 400 years, French and Passamaquoddy representatives meet again on St. Croix Island on June 26, 2004. The Government of France presents the Passamaquoddy Tribe with its Legion of Honour Medal for aiding the 1604 settlers. The Passamaquoddy respond with tribal gifts. (National Park Service photo)*

This legacy is being preserved through expanded interpretation at the International Historic Site properties in both countries and in a permanent exhibit hall at the Downeast Heritage Center.

The Commission was a proud partner, technical advisor and catalyst throughout this ten-year project.

### St. Croix 1604 Educational Trunks

As its own contribution to the legacy of the 1604 French settlement, the Commission partnered with the US National Park Service to fund an educational curriculum on Saint Croix Island for permanent use in 200 Maine and New Brunswick schools.

This special "trunk" provides a variety of hands-on activities that help young people to appreciate and take pride in a very unique aspect of their region's heritage.

### Downeast Heritage Center

In May 2004, the Downeast Heritage Center opened its doors on the Calais (Maine) waterfront and in so doing, opened a window to the vibrant natural and cultural heritage of the St. Croix region.

For five years, the Waterway Commission served on a committee to plan, fund and construct this world class facility. Through the efforts of many partners, \$6.7 million was raised to develop a three-story center that incorporates a 140-year-old railway station, new exhibit space and a glass atrium overlooking the St. Croix River.

Visitors now tour galleries that highlight the

region's land and sea resources, native Passamaquoddy heritage and the first French settlement in North America. They are then invited to expand their experience by visiting nearby heritage locations, businesses and events, and take home a wide range of traditional crafts.

The Center hopes to attract over 40,000 visitors annually, as it showcases the region's identity and expands its heritage-based economy.

### A Native Heritage

The Commission recognizes the significant role that the Passamaquoddy people play in the St. Croix's identity, and seeks to support this. In 2003, the Commission helped tribal members to record oral history, traditional songs and language instruction for archival and educational use.

### Sustainable Tourism

The Commission works to encourage heritage tourism as an important part of the St. Croix's rural economy.

In October 2003, it helped to deliver a workshop to create a sustainable coastal tourism vision for the 3-state, 2-province Gulf of Maine region. This session drew together 40 people representing tourism, conservation, cultural, community and government interests to identify the role of coastal tourism in regional planning and to explore ways for jurisdictions to work together on its delivery. This initiative is being pursued through the Gulf of Maine Council on the Marine Environment.

The Commission participates regularly in economic and tourism planning initiatives on both sides of the St. Croix border, bringing to these initiatives its 15 years of planning experience in both New Brunswick and Maine. It also serves on various advisory committees for outdoor recreation and tourism development.

### Keeping Open Borders

The terrorist strikes of September 11, 2002 led to dramatic changes in United States border operations. One of these, in 2003, was to close a number of international crossings and to reduce the hours of service at others. Two of the crossings on the St. Croix were scheduled for changes that would have had severe impacts on the local residents who depend upon these for access to family, friends and key services.

The Commission worked with community leaders and political representatives to present the special case of these St. Croix crossings to border officials. As a result of these efforts, the two crossings remained open and had their hours extended.

## RECREATION

### Maintaining Backcountry Opportunities

The Commission operates 40 backcountry campsites and water accesses on the St. Croix for the Province of New Brunswick and 12 sites for the State of Maine. These create a network of facilities that allow over 8,000 users to enjoy the waterway each year. Summer camps, youth groups, families and other outdoor folk all find their place in the unspoiled lake and river settings of the St. Croix.



*Commission staff often canoe to work to maintain backcountry campsites, portages and accesses along the international waterway. (NB Telegraph-Journal photo)*

Generations of use have worn the shores and tent sites at some locations, however, and in 2004 the Commission began a four-year program to restore the banks and native vegetation at these sites.

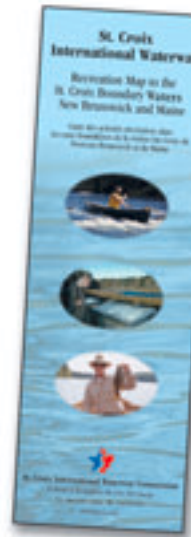
### St. Croix Waterway Recreation Map

To encourage safe recreational use of the St. Croix, in 2004 the Commission released a new full-color waterproof map that details the access points, campsites, water hazards, conservation lands, communities and roadways along the waterway corridor.

The publication covers all 180km/112mi of the St. Croix system and includes information valuable to boaters, canoeists, anglers, campers and road travelers. It is available for purchase from the Commission and local outlets (see the back panel for details).

### Boundary Waters Recreational Fishing Guide

As a free public service, the Commission produces the only comprehensive guide to freshwater and saltwater recreational fishing on the St. Croix boundary waters.



This brochure lists the special Maine and New Brunswick fishing regulations that apply specifically to these waters and is an essential item for any boundary water angler.

This is distributed at local outlets throughout the St. Croix area and is also available from the Commission.

## WATER QUALITY

### Surface Water Classification

Clean water for the future is the top local priority in the St. Croix waterway's international management plan, and the Commission takes this goal seriously. Since 1990 the Commission has worked with New Brunswick to develop and implement a water classification system similar to Maine's, to give matching protection to water quality throughout the watershed.

In 2002, the province adopted an 'ABC' grading system compatible with Maine's and classified all provincial lakes as Class A (highest quality). In 2003-2004, the Commission worked with the province to carry out further consultations on a proposal developed by the Commission to classify all other provincial waters in the St. Croix system.

These New Brunswick classifications may be adopted as a regulation in 2005, making the St. Croix the first North American boundary water to have a legislated, international water quality protection program.

### Piloting New Technology

Many small communities in Atlantic Canada depend upon sewage lagoons to treat their wastewater. However when these lagoons reach the end of their operational life they must be replaced.

In 2004, the Town of St. Stephen (N.B.) opened a new wastewater treatment plant and faced the need to remove the old lagoons from its downtown waterfront. The Commission partnered with the town to explore turning these liabilities into assets by converting them into a constructed wetland to treat stormwater and provide an attractive area for waterfowl and nature viewing.

While constructed wetlands are not new, the design of one within the existing 'footprint' of a former sewage lagoon and the use of a vertical flow system to give better year-round stormwater treatment are a precedent in this region. Tried first on the St. Croix, these may offer other communities a way to re-use obsolete lagoons to improve the region's water quality.

### Volunteer Monitoring

Volunteers have an active role in monitoring water quality on the St. Croix. Each year, the Commission coordinates a network of volunteers that collect water transparency (secchi disk) data at 18 locations on eight lakes throughout the summer months, to give an early warning of changes in water quality.

On the tidewaters, Commission staff collect water samples at 11 coastal sites for Maine's shellfish monitoring program, eight months of the year.

### Water Quality Surveys

In 2004, the Commission supplied technical and logistical support for water surveys that will enable the State of Maine to develop a current predictive water quality model for the lower St. Croix River. This model, which replaces one in use since 1986, will assist the state to set allowable discharge loading to this river segment from industrial and municipal outfalls - an important consideration for Maine and New Brunswick.



*Volunteer lake monitors usually travel by boat or canoe but not volunteer Bob Ellis, who flies to his test sites on Spednic Lake.*

In 2004, the Commission also began its current round of six-year water assessments on lakes throughout the St. Croix watershed, a process that takes two summers to complete and covers 26 sites on 18 lakes. With assistance from the Passamaquoddy tribe and New Brunswick, the Commission completed baseline testing on eight lakes in 2004; ten additional lakes are scheduled to be surveyed in 2005. The data from these surveys are provided to agencies and local interests on both sides of the international border, eliminating the need for duplicative sampling.