

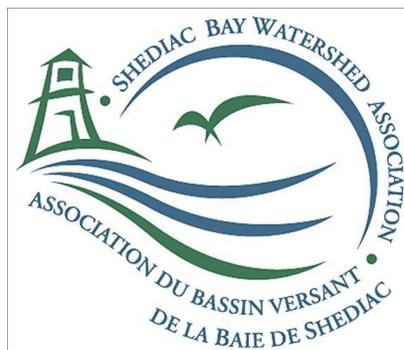
# SALMONID ENHANCEMENT AND PUBLIC ENGAGEMENT PROGRAM



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## Introduction

The Shediac Bay Watershed Association (SBWA) is a not-for-profit organization located in Shediac, New Brunswick. The SBWA was founded in 1999 as a result of growing concerns among residents from various local communities over the ecological health of Shediac Bay. A Board of Directors, representing the various communities found within the 400 km<sup>2</sup> watershed boundaries, oversees its activities. The Association deals with issues related to water quality and habitat integrity.

The Shediac Bay Watershed Association has been enhancing our coastline, rivers, brooks, and streams for over a decade. Our watershed has recovered from a series of setbacks and is now in good environmental health. Our priority goal is to enhance the numbers of the natural salmonid populations. The Shediac and Scoudouc rivers and their tributaries have potential for ideal spawning habitat. This project is also designed to engage and educate the stakeholders who have a vested interest in the health and use of the two rivers.

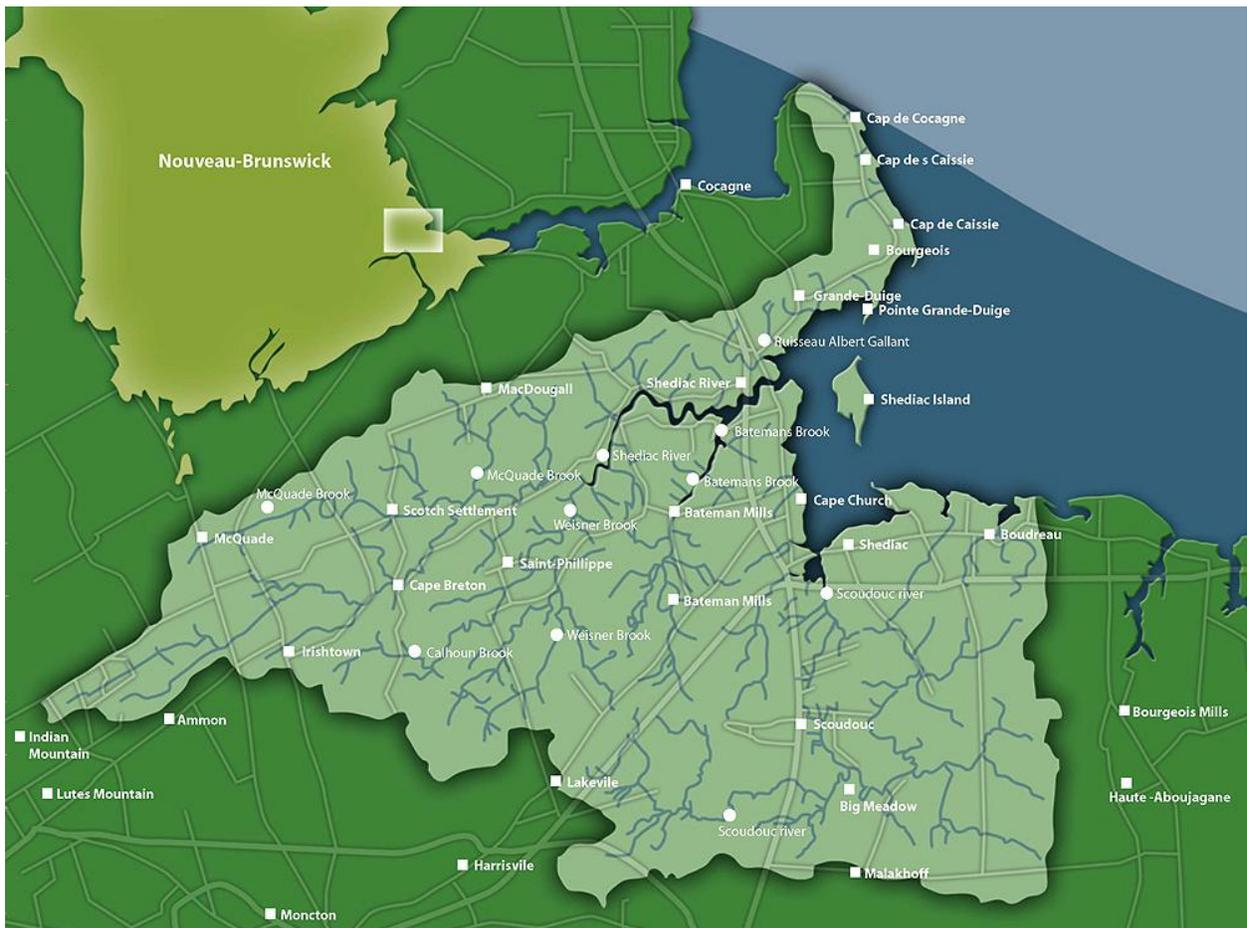


Figure 1 : Shediac Bay watershed with major tributaries

## ***Project results***

The Association worked on four areas for this project: electrofishing surveys, trout restocking, habitat enhancement and education.

### *Electrofishing Surveys*

The last known electrofishing survey was performed in 2005 and had revealed that Atlantic salmon parrs (*Salmo salar*) and other salmonids such as the brook trout (*Salvelinus fontinalis*) were present in both main river systems within the Shediac Bay watershed.

There's a need for better information on the population and trends of salmonids in the Shediac Bay basin to be able to draft a management and restocking plan. According to local anglers, various fish species densities drastically decreased over the last two decades in both Shediac and Scoudouc river systems. Brook trout populations in the Shediac and Scoudouc Rivers have depleted for a variety of suspected causes: habitat degradation; recreational overfishing; and commercial (by-catch) mortality. In recent years, much has been done to address these factors.

Electrofishing will help the association in gathering the crucial information needed to manage salmonids in the watershed.

However, the Shediac Bay Watershed Association only hired a manager late in the summer season. This has prevented the possibility of electrofishing in 2013. The permit was only requested in early August which was too late for delivery in the fall. However much has already been done to go forward with electrofishing and salmonid population evaluation next year.

The SBWA manager has attended the backpack electrofishing the training course on August 16<sup>th</sup> from CRI in Fredericton. The training was completed and certification was received. This certification is necessary to have access to electrofishing equipment through Parks Canada or from the province of New Brunswick.

For further training, the coordinator participated in an electrofishing outing on the field with the group Les Amis de la Kouchibouguacis. This familiarized the association with the electrofishing protocol and with species found in the river.

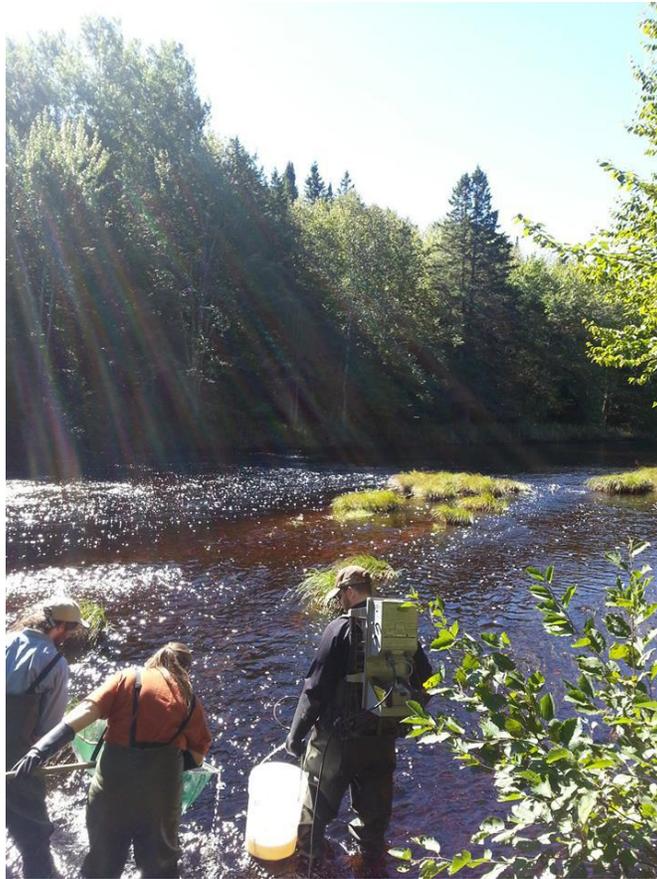


Figure 2 : Electrofishing on the Kouchibouguacis river

Another challenge to electrofishing that was addressed this year is access to backpack units. These units are very expensive and not very accessible. However, the group worked to form partnerships to access units. The first possibility is with les Amis de la Kouchibouguacis and Kouchibouguac National Park. A good partnership could be developed to exchange materials and staff time to do electrofishing for both groups. This would maximize trained personnel on the field.

The second possible partner is the Université de Moncton with professor Alyre Chiasson. The Association may borrow the electrofishing unit in exchange for data or as an inkind contribution.

Sites were selected for possible electrofishing sessions based on previous electrofishing records and current water quality monitoring. Some sites have also been selected for habitat restoration for trout and salmons. Proposals were developed and submitted in 2013 for these specific sites.

An information document for electrofishing contacts and permit is being drafted for use next year.

### *Trout restocking*

It was hoped that the electrofishing surveys would provide information that would be used for restocking brook trout in the Shediac and Scoudouc rivers. However it was not possible to organize an outing this summer. However, the association has done office work to further the possibility of restocking.

Information was gathered for the Shediac and Scoudouc rivers. We contacted the appropriate provincial authorities and obtained the adequate forms and contacts were made to secure brood stock for the Shediac River. However, due to staffing issues, the requests were made too late to organize restocking for 2013. We hope to be able to restock trout in 2014-15 with

Finally, a small scale restocking initiative was started with help of the fish friends program in two local schools. Since the Shediac River watershed does not have salmon brood stock trout eggs will be used instead. The eggs have been reserved and will be implemented in 2014.



Figure 3 : Possible electrofishing and restocking sites in the Shediac river

### *Habitat enhancement with public engagement*

The SBWA did some small scale habitat restoration with the community around the Shediac River. The association worked with a local business the Rendez Vous Take out and the local school, École Grande-Digue to plant shrubs in the riparian zone next to the take-out. The grade 4 class planted the shrubs to restore the shoreline with SBWA staff.



Figure 4 & 5 : Restoring habitat with school group

Also, in order to get good information and move forward some community restoration projects, the manager of the SBWA attended a free watercourse restoration course in Sussex on October 5<sup>th</sup> organized By Community Forest International. The workshop covered best practices for stream restoration that can be applied to the watershed.

### *Education*

Education is an important focus for the Shediac Bay Watershed Association. The SBWA takes advantage of different opportunities to present its projects to the public and to local schools. A part of our regular display was dedicated to salmonids and stream restoration.

The group was present at the Shediac Market every Sunday in the summer to talk about our projects to the public and to potential partners.

The SBWA also had displays at other community events such as the Celebrate the Bay festival and the community health fair. These events were good opportunities to talk about fish habitat in the Shediac Bay basin.

## School presentations

Two classes were recruited for the fish friends program, one in Monseigneur François Bourgeois school and one in Shediac Cape school. The classes received the aquariums and chillers in the fall. To test the units and do some first presentations young hatchery trout was brought in the classrooms for the kids to observe and feed.



Figure 6 : Trouts in the classroom

Presentations on trout and salmon were done in each classroom. Eggs will be brought in winter-spring 2014 to continue the learning on fish life cycles.

## ***Conclusion***

This WTF project has given the Association the opportunity to start involving local stakeholders in restoring local rivers for salmonids.

Many important contacts have been made that will give the association the best chances to do trout restocking and salmon habitat restoration in the future.

The project will continue in the next years to eventually have a comprehensive management plan for freshwater fish in the Shediac Bay Watersheds.

