



Anqotum
Resource Management

October 2017

From the Desk of James P. Ward

Fall has officially begun and a number of large-scale projects have wrapped up for the Spring and Summer of 2017. Anqotum continued with its efforts in the restoration of the Little Southwest Miramichi River, located across from the Second Oxbow in Metepenagiag Mi'kmaq Nation, as well as numerous research projects on species of interest to our communities.

The third year of our Promoting Lifelong Learning Program wrapped up in late winter and year four of the project is underway, and we are anticipating another successful year. The project delivery remains the same, with visits to the Mi'kmaq-run schools in the Province: Esgenoopetitj, Elsipogtog, Metepenagiag and Natoaganeg. Educating our younger generations about endangered species and science is a priority for a healthy future.

This year marks our tenth anniversary and we look forward to many more years of service with our eight Mi'kmaq communities, alongside a few fresh faces in our organization!

I invite you to have a read through our bi-annual newsletter to learn more about what we have been busy doing over the last six months, or you can visit our Facebook page by simply searching “Anqotum Resource Management” or our website at www.anqotum.ca.



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Promoting Lifelong Learning 2017 - 2018

Once again, Anqotum Resource Management will offer the Promoting Lifelong Learning Program to four Mi'kmaq schools in the local area - Elsipogtog, Esgenoopetitj, Metepenagiag and Natoaganeg First Nations schools. The program consists of a field visit to a local community brook for a hands-on stewardship activity followed by a classroom theory/hands on lesson; and then a final event at each of the four schools. We are also fortunate to have a drone in our program to show students how technology can help us protect species, brooks and other aspects of

our environment. We will focus on four species at risk – Atlantic salmon; Atlantic sturgeon, American eel and wood turtle – all significant species to the Mi'kmaq.

Each school will be provided with straightforward information kits to help complete their “adopted brook” presentation. These kits may include learning tools such as video footage using our underwater camera, interviews from local Elders, pictures, and easy to understand data that we have collected from their river/brook, such as normal water temperatures, typical plants, and aerial photographs to display how large the body of water is.

To learn more about Promoting Lifelong Learning, you can visit our website at www.anqotum.ca to see videos and photos from previous years.



Little Southwest Miramichi River Restoration Project - Year Two Press Release

RED BANK, NEW BRUNSWICK – The Government of Canada is committed to working together with First Nations to support restoration efforts and improvements to water courses to protect fish habitat namely for Atlantic salmon, American eel and sturgeon.

Member of Parliament for Miramichi — Grand Lake, Pat Finnigan, announced on behalf of the Honourable Dominic LeBlanc, Minister of Fisheries, Oceans and the Canadian Coast Guard an investment of \$1.4 M for the restoration and improvement of a section of the Little Southwest Miramichi River. He was joined

by Chief Bill Ward of the Metepenagiag Mi'kmaq Nation, and representatives of the North Shore Micmac District Council (NSMDC) - Anqotum Resource Management, and several guests to mark and celebrate work being carried out for this large-scale restoration project.

Before the start of the project in 2016, between one and four metres of the river bank eroded each year. Over time, this has altered the water and sediment flow, as well as habitat degradation of several species such as Atlantic salmon, American eel and sturgeon.

In order to prevent further degradation, concerned

community members and the Metepenagiag Mi'kmaq Nation took the lead on consultations with local stakeholders and the federal and provincial regulatory authorities to propose a restoration project for this portion of the river.

The goal of this restoration project is to counter erosion of the river bank, create and improve fish habitat, expand biodiversity, as well as improve water quality and flow. The project will also help protect significant Mi'kmaq heritage resources throughout the floodplain surrounding the river. At the request of its member community of Metepenagiag, NSMDC Anqotum Resource Management is managing all aspects of the initiative which will provide an opportunity for members of the Metepenagiag Mi'kmaq Nation to build capacity through the coordination, implementation and monitoring of the project.

Construction was completed in early September. A three-year monitoring period will follow after the project is completed.



Chief Bill Ward, pictured with flag-bearer, Emma Jane Ward, speaks at the media event for LSWMR project.



Before (April 2016)



After (September 2017)



From left to right: Project Consultant Nigel Tilson, Brandon Boyer, Project Consultant Ron Jenkins, Michael Ward, Roger Ward, Shane Matchett, Shannon Ward, Madison Levi and Wayne Ward.

Restoration Crew Perspectives

By Shane Matchett

Working for Anqotum this summer, and being part of the restoration of the Little South West River/Oxbow site, was an amazing experience. I learned

a lot about the aquatic ecosystem and what inhabits the Oxbow site in my community of Metepenagiag Mi'kmaq Nation, and also how important this restoration was in preserving it for future generations.

Being from Metepenagiag, I always noticed the river bank changing each spring, but I never realized how much damage the eroding banks had impacted our beautiful river. The gradual wearing away of land had more long term damaging effects than I could have ever imagined. From working on the project this summer, I learned that the erosion of the banks made part of the river more shallow, making it harder for fish travelling up stream. The area is also an important habitat for two species at risk - wood turtles and bank swallows. All in all, I'm glad I was able to help to preserve habitat and also understand how something so simple as erosion can really affect an ecosystem. I feel a great sense of accomplishment and pride in knowing I played even the smallest role by being part of this project.

Restoration Crew Perspectives

By Madison Levi

This summer, I had the pleasure of being a part of a historic project in my community, Metepenagiag Mi'kmaq Nation. Being a laborer gave me the opportunity to learn a variety of skills needed for river restoration - from walking the land and learning about the environment that surrounds us, to surveying and protecting wildlife and its habitat.

It took me awhile to realize how important my job was. Although I was performing small to large tasks day to day, I came to realize how significant each job assigned really was. Everything that the labor crew and construction company was doing was to ultimately save and protect the River for future generations. I'm thinking that in 20 or 30 years from now, with the development of this site, that I will be able to show my kids the work I did. The work represents a sense of pride and respect for Mother Earth and her gifts, which most of us

take for granted. I can tell you one thing for sure – that on the hottest days working in 25 degree plus weather was when you really felt the hard work being put in to this site, and I knew, how, even as an individual, you were affecting the environment on a greater and positive scale and making a difference.

As a university student, I can honestly say this job was one of the better ones I've had because of the great people I got to meet and work with as well as the lifelong knowledge I gained in three short months. I will carry this experience with me throughout my studies, and being able to go back and see how the site has grown will be worthwhile and gratifying as well.



Children participating in summer science camp held at Kouchibouguac National Park.

Summer Science Camp

As in previous years, Anqotum's summer students were responsible for organizing and delivering the summer science camps, which were again held at Kouchibouguac National Park and Fort Folly Nation. Eleven children from the communities of Indian Island, Metepenagiag and Natoaganeg attended the camp in Kouchibouguac. They began the day with a wigwam gathering hosted by Elder Marilyn Simon Ingram from the nearby

community of Elsipogtog First Nation. She told the children stories about how the Mi'kmaq of the past lived off the land and showed them several hides from animals native to New Brunswick, including wolverine, skunk, coyote, and caribou. Later that day, the children got to tie dye t-shirts and play two species at risk games, and then took a long nature walk around the Park. The day ended with the children participating in "Lagoon Life". This is a uniquely offered program by the Park where



participants use nets to catch the different aquatic species that make the salt-water lagoon their home. After that, Elder Marilyn explained what and why the animals reside at the Park. The children departed for home late in the afternoon with swag bags and summer science camp certificates of completion.

The following day our summer students travelled to Fort Folly First Nation where ten very excited children couldn't wait to participate in the day's activities. After the summer students demonstrated a few science experiments, it was the children's turn to carry out their own experiments, which proved

Children from Fort Folly First Nation.

to be the highlight of their day. Both the summer students and the children found the experience to be thoroughly engaging. Following a lunch of pizza and garlic fingers and a few more games, it was time to wrap up for the day.

This marks the tenth year that our organization has delivered summer science camps, and as always, they were another great success! We want to thank the communities of Indian Island, Metepenagiag, Natoaganeg and Fort Folly for their participation



Wood Turtle Monitoring

by Jonathan Ginnish

Anqotum Resource Management first took on the task of tracking wood turtles in the spring of 2016, and I have been fortunate enough to work on this project as a summer student for the past two years. Last year, Anqotum fitted 12 turtles in the Metepenagiag area with monitoring tags and the animals were tracked over the course of the next thirteen months. The busiest time was during the summer months when the turtles are on the move. This period required almost daily monitoring in the heat and humidity (and the

bugs)! It was very difficult work, but so rewarding, as I got to learn first hand about these fascinating creatures.

This spring, I was eager to seek employment with Anqotum once again after my University year wrapped up. And this year proved to be another busy summer with so many projects, including bank swallow monitoring in the Little Southwest Miramichi River, identification of the Brook Floater fresh water mussel, Community Aquatic Monitoring Program (CAMP), and the Anqotum 10th Anniversary community BBQ. But I was very excited to again jump into the wood turtle project. I worked with Anqotum's field technicians, Nelson Cloud and Trenton Francis, and our main task was to track the turtles, which were just coming out of hibernation, and then remove their monitoring tags. It took a full month, but we did manage to find every turtle! Nancy, the final elusive turtle, was found in late June in the middle of the Miramichi River just a short distance from the Sunny Corner Bridge.

Jonathan and "Nancy"



We have recently celebrated our 10 Year Anniversary as an organization! A picture is worth a thousand words, so here's a few for your viewing pleasure.





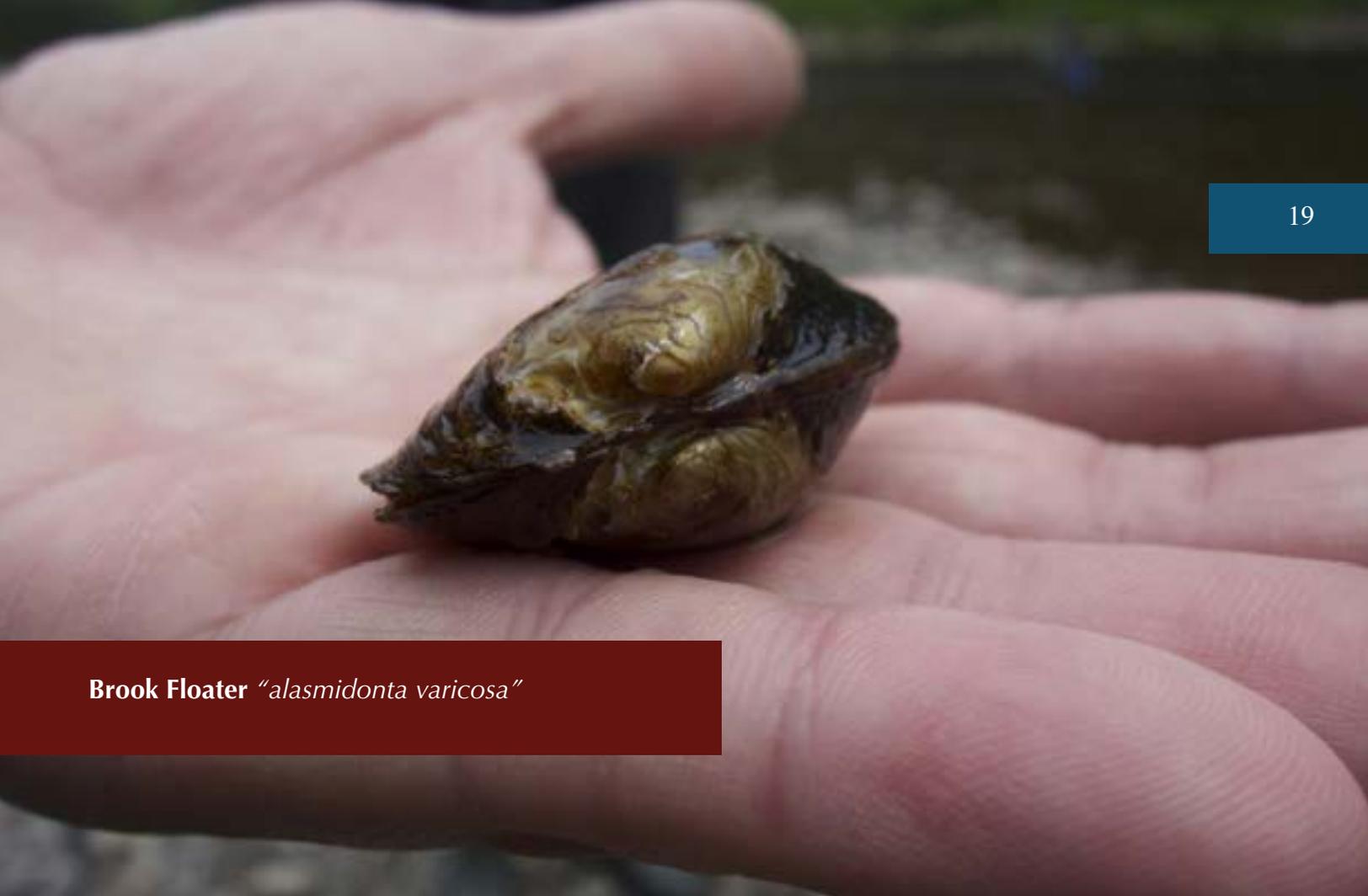
Brook Floater Research

The Brook Floater, listed as “Special Concern” by the Species at Risk Act (SARA), is a freshwater mussel that is found in North America. In Canada, Brook Floater is found in New Brunswick as well as Nova Scotia and their habitat consists of rivers, lakes and streams. We have begun doing research on this species to find their whereabouts in the local eco and river systems, as there is great uncertainty associated with the populations and distribution of this species. This year, we are focusing our surveys, aerial photography, and our water quality probe on the Miramichi River system. Gathering eDNA water samples in various rivers to determine the presence of this species is an interesting component of

our project, and we are excited to be a part of this new research advancement. Another important aspect of our project will be community workshops and speaking to community members about traditional stories and current interactions with the species. Perhaps you have an interesting story you could share about the Brook Floater? Let us know.



Participants of Brook Floater workshop.



Brook Floater "*alasmidonta varicosa*"



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