

# The ACPF Herald

ATLANTIC COASTAL PLAIN FLORA

FALL/WINTER 2012

FREE Vol 4.



## The Atlantic Coastal Plain Flora Project

Atlantic Coastal Plain Flora (ACPF) refers to a unique group of plant species that are mainly restricted to the flat land along the Atlantic Coast from Florida to Nova Scotia called the Atlantic Coastal Plain. There are over 90 species of ACPF in Nova Scotia that are mainly found along lake shorelines, salt marshes and freshwater wetlands in the southwest part of the province. Some of these plants are found nowhere else in Canada and are globally rare, making our province a special place! It is up to us to ensure that we don't lose this distinct and diverse group of plants.

A project focussed on ACPF was initiated in 2010 by the Mersey Tobetic Research Institute (MTRI) with funding from Government of Canada's Habitat Stewardship Program for Species at Risk and other partners. It focuses on increasing the science, stewardship and education of ACPF through plant inventories, habitat mapping, water quality monitoring, hands-on participation, public events and outreach on 36 ACPF lakes.

## Walking the Shorelines *by Alain Belliveau*

Researchers, volunteers and botanists were hard at work again in 2012. A minimum of 250 kilometres of shoreline was travelled on 18 lakes in order to count rare plants and classify the shoreline habitats. This information will be used

to map out the plant populations and possibly associate them with specific habitat characteristics in the future. Five lakes from the Medway were tackled, including three small lakes with Sweet Pepperbush, and two large lakes (Molega and Ponhook) which are known for Redroot, Golden Crest and many other rarities. One lake in the Petite Rivière watershed was also completed. Great Pubnico Lake - a lake with hundreds of islands - is nearing completion after over 60 islands were surveyed this year! Three nearby lakes, also known for their Tubercled Spikerush, were completely surveyed. Over in the Tusket watershed, Louis Lake and Kempt Snare Lake were completely surveyed and the large Raynards Lake was surveyed to completion. Belliveau Lake, which is abundant in Sweet Pepperbush, was also completely surveyed. Large sections of Keji Lake, including some with astounding populations of Water Pennywort, were surveyed as well.

This productive year has been due in large part to many keen and dedicated volunteers. Thanks for the hard work!

*Alain Belliveau is an ecosystems researcher in southwest Nova Scotia*

## Water Quality Monitoring

Water quality monitoring continued in 2012 with its expanded program thanks again to funding from RBC's Bluewater fund. Our sampling has now captured three years of data for these important ACPF watersheds. The last round of water quality sampling is occurring at the end of October and results will be available soon.





## Landowner Contact *by Pat Hudson*

Two BBQs and plant walks took place over the summer, one at Great Pubnico Lake Landing and another at Ponhook Lake Landing. It was a great opportunity for landowners to come out and learn more about Atlantic Coastal Plains Flora (ACPF) habitat and the plants that grow on their lakeshores. Nick Hill, Brad Toms, Megan Crowley, Alain Belliveau eagerly talked to the landowners and took them on plant walks along the lakeshores.

One landowner's comment was "nice to see people concerned with flora and nature in general, good ACPF guidebook and information." The past two years one father and his three sons have come to the BBQ and plant walk. This summer one of the teenage sons spent the day with the botanists and researchers on the lake where the family cottage has been for many years. This proved to be both interesting and exciting for us all. During landowner contact landowners are encouraged to come out and volunteer with us for lakeshore surveys and give them the ACPF guide book to help them identify species on their own.

This fall there will be two volunteer appreciation events planned to recognize individuals who took time to come out on lakeshore surveys with us and learn more about ACPF and becoming stewards of their land. Community Coordinator Pat Hudson chatted with approximately 125 people on six lakes while doing landowner contact. This continued to be a positive way to engage landowners to become volunteers and stewards of their land.

*Pat Hudson is a Community Outreach Coordinator and outdoors enthusiast located in Barrington*

## ACPF Volunteer Monitoring *by Cristi Frittaion*

The 2012 season brought together nature enthusiasts in a united effort to monitor ACPF in southwest Nova for another successful year of the ACPF volunteer monitoring program. Staff from the Nova Scotia Nature Trust, MTRI, and Parks Canada (Keji) led two volunteer training sessions, on Ponhook and Wilsons Lake, where volunteers learned to identify at-risk and other unique ACPF species and to assess the quality of their habitats. These 'rare plant monitors' were assigned sites to monitor ACPF on a yearly basis and have now been submitting their summer data sheets to the NSNT – they look great! Thank you so much for all your hard work; we look forward to seeing you next year! If you are interested in this important – and fun – program, please contact Cristi at [cristi@nsnt.ca](mailto:cristi@nsnt.ca) or 902.425.5263.



Volunteers learning the plant monitoring protocol on the shores of Ponhook Lake

*Cristi Frittaion is a Conservation Coordinator at the Nova Scotia Nature Trust*

## Photo Gallery



Pat Hudson collecting data for Sweet Pepperbush habitat



Nick Hill, botanist, pointing out rare plants to a landowner



Diane LaRue, volunteer, resting after collecting habitat data



Three botanists, one researcher, and four volunteers work to map out rare plant distribution on Raynards Lake



A young volunteer, Gracen, learns about rare plants with researchers on the foggy islands of Great Pubnico Lake



Maleberry, a new ACPF species for NS discovered in 2011



A plant walk at the Molega-Ponhook area BBQ, where local landowners learned about rare ACPF



Curly-Grass Fern: The smallest fern in NS, and a rare ACPF species as well



Finding a Black Ash forest in a wetlands just behind an ACPF shoreline on Ponhook Lake



## A Volunteering Adventure *by Guy Belliveau*

I was invited to participate in a Sweet Pepperbush and shore substrate survey of Belliveau Lake, Digby County in late August 2012. The weather was great and the biodiversity found on this lake was eye opening and beautiful. The plant that the MTRI Researcher and I focussed on was the Sweet Pepperbush which was found mostly on the north side of the lake and islands' southerly shores, exposed to the warm midday sun. I found the strong sweet fragrance of the sweet pepperbush excessively pleasant and soothing and the bees, butterflies and various insect activity in and around the Sweet Pepperbush was very interesting and colourful.



A butterfly lands on a Sweet Pepperbush

Alain Belliveau

The small fish and colourful aquatic insects we witnessed, slightly below the surface of the water, among the aquatic vegetation was equally interesting, as we canoed along the lake's and islands' shore line. The



Guy collecting habitat data on Belliveau Lake

Alain Belliveau

scientific language and plant names spoken at time was over the top for me but nevertheless enjoyed it and would participate in surveys anytime. This research is invaluable and the encouragement for proper land stewardship is important for future generations to enjoy. The

Atlantic Coastal Plain Flora is truly a gift for southwest Nova Scotia. Although there has been significant disruption of the area since Europeans have come to Nova Scotia, we must all make an effort to preserve what remains or as much of it as we can. It would be the greatest gift we could leave to our children and grandchildren. Thanks so much for the opportunity.

*Guy Belliveau is a volunteer from Clare*

## New Finds in 2012 *by Alain Belliveau*

There were two new ACPF plant finds on lakeshores this year: Green Arrow Arum (*Peltandra virginica*) on Beartrap Lake and Coastal Jointweed (*Polygonella articulata*) on Great Pubnico Lake. Although both are new records to Nova Scotia, more research is needed to determine their extent and how they ended up in our province. Exciting finds, nonetheless!



Green Arrow Arum



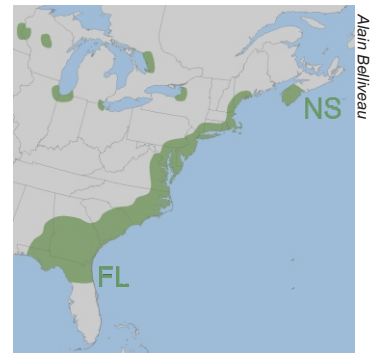
Coastal Jointweed

Photos by Alain Belliveau

## Plant Species That Occur Both in Florida and Nova Scotia *by Diane LaRue*

Did you know that there are over 250 native plant species that occur in Nova Scotia and in Florida! Plus, there are another 200 non-native species that occur in both localities. That's over 25% of the Nova Scotian flora. Of course, Nova Scotia's boreal and arctic species do not occur in Florida, and Florida's tropical species do not occur here. But in spite of vast climatic differences between these two locations, many temperate plant species thrive in both places. My investigation into plant species occupying what we perceive as widely differing climatic zones has provided an opportunity for a fascinating journey of exploration.

Although some of the species are common and have a widespread distribution across all of North America, like Water Lily or throughout the eastern part of the continent, like Pickerelweed, many of the species do not. Some species are rare here because they are at the northern end of their range. Many of these species are Atlantic Coastal Plain Flora (ACPF) ones. For example Buttonbush, which occurs from the southeastern states including Florida to Nova Scotia and New Brunswick, is a species at risk in our provinces. Brookside Alder is rare in northern areas, and is presumably at the northern end of its range here. Some do not occur as a continuous band from Nova Scotia to Florida; they are disjunct here. Examples are the Groundsel tree, Bloodroot and Goldencrest which are disjunct and species at risk here, but are common and widespread in the southeastern states including Florida. Threadleaved Sundew is interesting because it is rare in both Nova Scotia and Florida, disjunct in both, and is listed endangered in both places.



The main distribution for ACPF ranges from northern Florida to southwest Nova Scotia

Alain Belliveau

Although these species that occur in both Nova Scotia and Florida are found in similar habitats, the plant community is different. When they are found in Nova Scotia their community plants have a more northern range that does not reach to the southeastern states (except for those that extend to the mountains of Georgia). Likewise, when they are found in Florida, the distribution of their companion plants does not reach northern areas.

*Diane LaRue is a plant researcher and volunteer in southwest Nova Scotia during the summer, and visits family in Florida during the winter.*

Alain Belliveau



Water Pennywort, a weed in FL and an endangered species in NS

## CONTACT US

For more information or to get involved contact one of our friendly team members:

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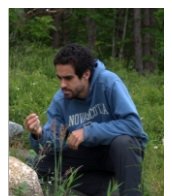
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