



# *The Rucksack*

Newsletter of the Friends of McNabs Island Society

The Society is a registered charity: CCRA number 88847 4194 RR 0001

Volume 29 Issue 1

Winter 2020

## *What shaped McNabs Island and what does the future hold?*

The Friends of McNabs Island Society is excited to host Don Forbes as the Guest Speaker for our 30th Annual General Meeting being held April 22, 2020 at 6:45 p.m. in the Maritime Museum of the Atlantic, Halifax.

McNabs Island, that jewel in the harbour mouth, was never exactly like it is today and will never be the same again. The ground beneath it is slowly sinking, the sea is rising. Wind and waves, rain and groundwater, freeze and thaw are all working to change the shape of the island. Over time, small changes add up to big ones. We know that people have also played a large part in shaping the island, so that its landscape is a combination of natural processes and human activity. Nevertheless, the shape of McNabs is mainly a product of glaciation tens of thousands of years ago (creating the till cover and drumlin hills that dominate the island landscape), the crustal and sea-level response to the end of the ice age, and the storms and waves that have acted on the island shoreline for millennia. We will look at past changes recorded through maps, paintings, photographs, and surveys and consider what the future holds for the island shoreline.



photo credit: Don Forbes

*“McNabs Island, that jewel in the harbour mouth, was never exactly like it is today and will never be the same again.”*

Don Forbes is an Emeritus Research Scientist with the Geological Survey of Canada at the Bedford Institute of Oceanography and an Adjunct Professor at Memorial and Dalhousie universities. His research experience ranges from seabed mapping and remote sensing to coastal hazard reduction, climate-change adaptation, and building sustainability in coastal communities. He has worked extensively across the Canadian Arctic, the Atlantic Provinces, Lake Winnipeg, Ireland, the South Pacific, and elsewhere. Don served twice as a lead author with the Intergovernmental Panel on Climate Change and is Vice Chair of Future Earth Coasts. He believes passionately in the importance of environmental research that engages local knowledge and ways of knowing and community priorities or knowledge gaps.

## *Friends of McNabs Island Society*

### **The Rucksack**

Included with membership

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***We welcome contributions, ideas and feedback.***

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- Brian Phelan
- Faye Power
- Alexandra Vance

### **30th Anniversary Committee**

- Dachia Joudrey/Cathy McKenzie

## *McNabs Island Teahouse Project Update*

By Royce Walker

There has been a lot of activity and good progress with the Teahouse Renovation since our last newsletter.

The Friends of McNabs Island have had the vision of an Outdoor Education Center on the island from the very early days of the society, almost 30 years ago. We have been laying the groundwork and planning the Teahouse renovation project for a number of years, and it was in July of 2019 when we started our 'on island' phase of the work. This phase consisted of three planning trips and ten workdays at the Teahouse. It feels great to finally begin the physical work to transform the Teahouse. We have been very fortunate to receive generous support from material suppliers, installation contractors and ferry operators, along with great support by Lands and Forestry and our enthusiastic volunteers who provided a work team for each of the planned workdays.

Our goal for 2019 was to complete what we consider our 'Phase 1' of the McNabs Outdoor Education Center, which is essentially making the Teahouse 'roof tight' and suitable



Dec. 9 Work party  
photo credit: Royce Walker

**Dec.9 work party – Windows installed by Metro Windows and Doors. Photo of Metro Windows crew, L&F staff and Friends volunteers**



for use for public programs. Phase 1 includes removing the existing asphalt shingles and installation of a metal roof including four new skylights, fascia, eaves trough and downspouts, installation of new windows on the main floor and upper level, installation of new doors and securing the building to guard against storm damage or vandalism, which unfortunately continues to be a problem on the island. There are also carpentry repairs required to modify the upper floor into a storage loft and to provide minor additional structural support; a bit of earth removal on the back of the building; and, grading on the sides of the building for good drainage away from the building. All this work is to ensure the building serves well into the future for outdoor education programs within the park.



Dec. 16 Work party  
photo credit: Royce Walker

**Dec.16 work party – windows install by Metro Windows and Doors And carpentry work by Friends.**

To date, the roof and skylights and all the windows have been installed; the earth removal and grading has been completed; and, we have a start on the carpentry work. Weather issues and the holiday season ended our work for 2019.

I am personally very pleased with the progress of the project and with the enthusiastic support of our volunteers and partners. We have completed a significant amount of the work, including a logistically difficult aspect, by completing the roof replacement and the install of the new windows. This involved coordinating with contractors, Lands and Forestry, ferry schedules, weather and our volunteer availability. Lands & Forestry found a way to support us, using their tractor and trailer to move materials and equipment on all the key work days, helping to get the contractors to the Teahouse and progress the work as efficiently as possible. Overall it came together rather well.

We hope to be able to schedule at least a few days of work through the winter. We'll see how the weather cooperates.

Looking a little into the future, we have additional phases of Teahouse work in our plans. We are working plans for solar power in the Teahouse, interpretive materials, the addition of an outside deck on the north side of the building, a new composting toilet nearby and more.

As the physical structure of the Outdoor Education Center takes shape, we are beginning to think about our 'programs' and about how the Teahouse will play an important role in visitor experiences on the island and will provide an island base for group activities. A whole new aspect of Teahouse 'work' will open up.

We welcome anyone with interest in helping with the renovations or program development. Contact us at [info@mcnabsisland.ca](mailto:info@mcnabsisland.ca) or call me at 902-449-5020.

On behalf of the Friends, I want to thank everyone involved for your support and help to move this McNabs project forward! We are planning the opening of the McNabs Outdoor Education Center for this summer as part of our 30th Anniversary celebrations, watch for details and plan to attend!

***Dates are booked for our 2020 McNabs Island events, mark your calendar!!***

***We Are About To Be 30 Years Old!***

Annual General Meeting  
at Maritime Museum of the Atlantic

**April 22, 2020 6:45 p.m.**

What shaped McNabs Island and what does the future hold? Guest Speaker Don Forbes will give a presentation at which we will look at past changes recorded through maps, paintings, photographs, and surveys and consider what the future holds for the island shoreline. Light refreshments.

***Discover McNabs Island  
Summer Heritage Tours 2020***

**July 5, 12, 26 August 2, 9, 16, 23**

**Times: 9:30 – 3:30 and 10:30 – 4:30**

Hike through Canadian history on McNabs Island! Learn about the important role the Island played for the Mi'kmaw First Nations, the early French settlers, and the British, who built several fortifications overlooking Halifax Harbour to protect the Port of Halifax. Space is limited to 27 people per trip. Note: In the event of heavy rain or gale force winds, the tours will be cancelled.

Departures from A&M Sea Charters, Eastern Passage - Fisherman's Cove.

Cost: \$25 (members and children/youth under 16),  
\$30 (non-members).

Wear clothing appropriate for ever-changing Nova Scotian weather and for, at times, challenging terrain. Bring food and water.

Tickets on sale via Eventbrite.ca. They go very quickly. Don't miss out.

Become a member and receive advance notice!!

***McNabs Island Beach Cleanup 2020***

Free Event for volunteers willing to  
help clean up the Island

**Sunday June 7 , rain date of June 14.**

**Times: 9:30 - 4:30.**

Departures from Murphy's on the Water, Cable Wharf, Halifax and A&M Sea Charters, Eastern Passage - Fisherman's Cove.

In the past 30 years volunteers have collected nearly 14,000 bags of garbage from the shoreline of McNabs. While this event is free for volunteers, registration is required via Eventbrite.ca in the spring.

***Celebrate Friends' 30th  
Anniversary Picnic 2020***

**Saturday July 18, 2020 NO rain date**

**Pack a picnic lunch and join us!**

Departures from Murphy's on the Water, Cable Wharf, Halifax and A&M Sea Charters, Eastern Passage - Fisherman's Cove.

Cost: \$25 (members and children/youth under 16) \$30 (non-members).

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***Guided Heritage Tours of McNabs Island***

By Ian Smith

The Friends of McNabs Island Society (FOMIS) has been carrying out guided tours of the Island for most of our 30-year history. Last season FOMIS carried out 32 tours, including regularly scheduled Sunday tours throughout July and August, as well as individual tours for groups such as the Girl Guides, conferences, and ESL schools. We also carried out another 11 tours and static displays as part of the Fall Foliage Tours event, for which we sold around 230 tickets. (con't ►)

Some of the tours were guided by our two paid summer students, but the majority of the effort was carried out by an amazing team of volunteers. Special thanks in particular should be given to Dachia Joudrey and Jacqueline Halsey for their wonderful dedication.

The highlight of the tour season has always been the annual Fall Foliage Tours event, which is carried out in October. This year it included specialized tours led by experts, including ecologists, geologists, archaeologists. There was a slower-paced “family tour” with activities for kids, and a fast-paced

tour to Big Thrumcap at the southern tip of the island. In addition, we had static interpreters set up at the Teahouse gardens to talk about the restoration project, and more at Fort McNab in period military uniforms, to help interpret the island’s rich military history.

We’re looking forward to a busy 2020 tour season, although the price of tickets will have to rise to match increasing costs. Fortunately for the members of the Friends of McNabs Island Society, they will not only receive early-bird notice of when tickets go on sale, they will continue to receive a discount on ticket prices.

The public appetite for tours of McNabs Island is enormous, and the tickets always sell out in just a few days. The demand for tours exceeds the number of guides we have available, so we are always looking for new volunteers. New guides are given resources and training (and a snazzy hat and tshirt!), and paired with experienced guides until they feel like leading a tour themselves. Some guides prefer not to lead at all, but rather act as a “caboose”, and we need people like that too. It’s very rewarding and a lot of fun to share the island with the public, and see it anew through their eyes, so if you think you might like to give it a try, please contact [info@mcnabsisland.ca](mailto:info@mcnabsisland.ca).



Enjoying Heritage Tour - Summer 2019

photo credit: Ian Smith

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## *A Story from Former Island Resident*

By Faye Cleveland Power, Board Member of the Friends of McNabs.

Dad, Colin Cleveland, had been working at the Dartmouth Sugar Refinery when he fractured his foot. As he no longer was able to perform his duties, he was let go. Having a wife and 5 kids to support, he applied for the light keeper’s job for the “McNabs Island Lighthouse” at the suggestion of a friend.

Apparently, Jack Lynch, son of the retiring lighthouse keeper, Matthew Lynch, also applied for the position but as Dad was a veteran of the first World War, having fought at Vimy Ridge, Dad was awarded the job in 1932 at the salary of \$840 per annum. When he retired on his 66th birthday, November 5th, 1957, his pension was \$113.00 per month. I was 10 at the time and we moved to Fox Point (off of Hubbards) Nova Scotia.

Sadly, our lighthouse, located off of the Military Road on the North end of the Island by the Lynch houses, was torn down in 1976 and was replaced by a pair of small red lights on skeleton towers near the Hugonin Battery.



# *Coastal erosion, sea-level rise, and the gradual reduction of McNabs Island*

Donald L. Forbes and Gavin K. Manson  
Geological Survey of Canada (Atlantic)

McNabs and Lawlor are glacial drumlin islands in the mouth of Halifax Harbour. As old sailing directions indicated, the harbour lies between white granite cliffs to the west and red till cliffs to the east. One outcrop of ancient Halifax slate occurs on McNabs Island at the north end of Maughers Beach. The rest of the island is composed of glacial till in oval drumlin hills. These were formed by continental ice streaming southward onto the Scotian Shelf 70-18 thousand years ago (the red Lawrencetown Till gives the cliffs their colour). Halifax Harbour was sculpted by ice along the alignment of two faults that bracket McNabs and Lawlor islands.

As glacial ice withdrew from the region ~11 thousand years ago, sea level was 65-70 m lower than today and the coast lay about 12 km seaward. Local relative sea level has been rising since then, by about 30 cm during the 20th century, and is accelerating, with IPCC-derived projections of a 51-130 cm rise from 1995 to 2100.

In a very real sense, McNabs Island owes its shape to the combined effects of rising sea level and coastal erosion over the past several thousand years and continuing today. Erosion is caused by a combination of wave energy (scouring and removing sediment from cliffs, beaches, and the shoreface) and slope instability (resulting from undercutting and groundwater seepage). Wave erosion occurs all around the island but is most pronounced on exposed shores facing the harbour mouth and seaward.

As the till has been eroded from the southern headlands of Little Thrumcap, Big Thrumcap, Doyles Point, and the cliffs below Fort McNab (*con't ►*)



photo credit: Don Forbes, 18 September 2019.

**Ted Young observing severe erosion at Culliton Point, McNabs Island, 18 September 2019 following Hurricane Dorian. Note erosional profile in till (middle foreground) and Big Thrumcap in the distance (far right)**



photo credit: Don Forbes, 18 September 2019

**Toppled tree at end of the Lighthouse Road trail, the last of a grove that grew on the seaward side of the signpost. Beach has completely overridden the former viewing area.**



and Strawberry Battery, the dominant waves from the south have moved the sand, pebbles, cobbles and boulders alongshore to the north along both sides of the southern end of the island. They have formed the cobble-boulder beaches of Thrumcap Hook, Hangmans Beach, McNabs Cove, and Green Hill Cove, and the sandy beaches of Garrison Cove (Maughers Beach) and Wreck Cove.

Headland erosion is essential for preservation of the island beaches, even as it threatens some heritage resources and infrastructure. At the same time, shoreline recession can also result from landward beach migration, as happened with the complete overtopping and erosion of Garrison Road in and since the winter storms of early 2018.

Over time, storms and sea-level rise have reduced Little Thrumcap to a shoal and severely eroded Big Thrumcap. Big Thrumcap has historically been retreating by about 2.5 m per year. By that estimate it might be gone by the early 2120s, or sooner if erosion accelerates with climate change.

Meanwhile the supply of sediment from Little Thrumcap has ceased and Thrumcap Hook has been beaten down and breached. It no longer provides much shelter to Culliton Point, which faced an enclosed lagoon until recent decades. As observations following Hurricane Dorian showed, this point is now coming under severe attack and is beginning to act as a new sediment source to the beaches formerly supplied from Little Thrumcap. In this way, the erosional front has moved landward, continuing the gradual encroachment of the sea.



photo credit: Don Forbes, 18 September 2019.

**Garrison Road overridden by gravel storm beach, with Finlays Cove in the background. The roadbed was cut down on its outer side and buried in gravel, which was washed into the woods. At the time of this photo, a backhoe had re-established a rough trail.**



photo credit: Don Forbes, 18 September 2019.

**High, actively eroding, till cliff overlooking Hangmans Beach at Strawberry Battery. The beach no longer extends all the way to the lighthouse.**

# ***CELEBRATE Friends of McNabs 30th Anniversary Garden Party***

By Dachia Joudrey

Help us celebrate Friends of McNabs Island Society's 30th Anniversary Garden Party - July 18th, 2020.

The Friends of McNabs Island Society will be hosting a Garden Party, on the island, to celebrate its 30-year inception, to mark National Parks Day and to officially open the recently renovated Outdoor Education Centre (formerly the Teahouse).

Highlights of the day will include mini-tours to the forts, children's activities, music and the official opening of the Education Centre. Most activities will take place at the Teahouse area and the flat field of the camping grounds near Garrison Pier.

Tickets will go on sale in the spring via Eventbrite.ca. **Members will receive advance notice.** There will be no rain date for the event and if tour operators cancel due to high winds and/or bad weather, tickets will be refunded. Cost for the day is: Members and children under 16 - \$25, Non members \$30.

Details for the day including boat times and activity schedule will be provided in advance of ticket sales.

Come celebrate with the Friends this wonderful milestone and the opening of the outdoor classroom on the island. Bring your own picnic lunch, blanket and non-alcoholic beverage (Provincial Park rules) for this fun filled day. Come discover your island park where history, nature and recreation meet!

Looking forward to seeing you on July 18th.

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**Annual Membership to the Friends of McNabs Island Society runs on the calendar year, includes a year's subscription to the society's newsletter and discounts at our events.**

Members support the ongoing care and appropriate development for this natural environment park; this jewel in Halifax Harbour. The Friends advocate for funding to maintain the environment on the Island and participate in planning for the present and future well-being of the Island.

## ***Renew Your Membership Now!***

Thank you for your much needed continued support

**Renew your membership directly via our website:**

[mcnabsisland.ca/membership-application](http://mcnabsisland.ca/membership-application)

**or send a cheque payable to:**

The Friends of McNabs Island Society  
PO box 31240, Gladstone RPO  
Halifax, NS B3K 5Y1

The Society is a registered charity: CCRA Number 88 474 194 RR0001

**Visit our website or contact us**

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Cathy (902-434-2254).**

For updates, follow us on [facebook.com/McNabsIsland](https://www.facebook.com/McNabsIsland) and Twitter [@mcnabsisland](https://twitter.com/mcnabsisland).

Already a member? Invite your friends to join us. Talk to coworkers. As more people become aware of and support this gem, the better we will be able, together, to take care of it.

This issue went to print in February 2020