

In With the Tide

The Bay of Fundy Discovery Centre Association Newsletter



Our Fundy-Our Future



Students Lend Hand to Finish Nature Conservancy of Canada Trail on Brier Island

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In this Issue:

BofFDCA News	2
Westport Armour	3
Tykes & Critters	4
GOMI Tree	4
Remembering GOMI 2012	3-8
Balancing Rock Work	8
Sad Ending	9
Cove Creature	9
Who are we?	11

On May 29th, the area around the Western Light on Brier Island was a beehive of activity. Over 30 students from Islands Consolidated, Digby Regional High School and St. Mary's Bay Academy descended on the site to help the Nature Conservancy of Canada complete construction of a 5 kilometre coastal trail. Under cloudy skies, the highly capable young men and women took to the task immediately and spent the next five hours shoveling and hauling gravel, moving lumber, and constructing boardwalks and bridges. A couple of lucky young guys also got to operate some of the machinery on site. The work was completed under the supervision of staff from Cobequid Trail Consulting, a top-notch trail construction company based in Economy, Colchester County. Owner Garnett McLaughlin has been building trails throughout the province for over 10 years. He says "The trail project on Brier Island is an excellent example of how creative partnerships can lead to positive community development. This project would not have been possible without the contributions of multiple partners, including the local community, the Nature

Photo: Constructing one of six bridges and boardwalks completed during the day". Photo by John Glynn-Morris



Students receiving instruction on bridge construction from Cobequid Trails staff Jeff McLaughlin". Photo by John Glynn-Morris

Conservancy of Canada, several government departments, local schools and a several local businesses. By working together in a creative and collaborative manner, everyone left a winner. This example of 'Social Innovation' proves the power of creative partnerships to make good things happen for everyone".

The trail, running from a parking lot at Western Light all the way around to Pond Cove has been several years in progress. The completed product now includes constructed footpath, parking lots at Pond Cove and Western Light, interpretive signage and bridges and boardwalks. Some sections of the

trail are intended only for walkers, while others are multi-use, and provide for responsible use by all terrain vehicles (ATV's).

The trail project was envisioned in 2009 as a way to minimize the impacts of ATV use in some areas of the Brier Island Nature Preserve, as well as provide a more accessible and higher quality experience for both local users and tourists that visit the Preserve. Funding for the project was provided by the Nova Scotia Departments of Tourism, and Health and Wellness as well as the Regional Municipality of Digby, Mountain Equipment Co-op and the Walmart-Evergreen Green Grants Program. In total, these organizations contributed \$90,000 to the project, and the Nature Conservancy of Canada is extremely grateful for their support.

Sincere thanks to Roger Outhouse for all his support and to all the teachers for allowing their students to get out and volunteer for the day. We would also like to thank Dan Kenney and Danny Gaudet for their ongoing assistance with the work, as well as the Brier Island Lodge and Virginia and Ray Tudor, and Wally and Joyce DeVries at the store. Many other local folks also had a hand in various stages of this project, and we thank them all.

NCC's hopes this trail will act as a resource to the community, and contribute to the already amazing experience of Brier Island, by providing access to the Brier Island Nature Preserve and the spectacular vista's it has to offer. Please enjoy it!

Bay of Fundy Discovery Centre Association News

We have been an association for over 10 years and it seems that we get busier as each year goes by. This spring and summer we helped organize a Gulf of Maine Institute (GOMI) Mini Conference at Acadia University for 40 youth participants and a summer week-long workshop in Massachusetts, USA for eight teams (70 participants) from both sides of the border. The local GOMI Team helped prepare the Balancing Rock Trail for summer visitors,

did several beach area sweeps, and trail improvements. The team also hopes to work with the Nature Conservancy of Canada and the Tobeatic - Mersey Research Centre on a project aimed at protecting the endangered Eastern Mountain Avens plant which is found only on Brier Island, in East Ferry (Digby Neck) and in higher altitudes of the White Mountains of New Hampshire.

In addition we have been active participants

in a new committee formed to pursue a major Fundy interpretive centre centrally located in the Digby area. We have been invited by that group in a resource capacity to assist with their work. At this stage the group is showing great dedication and is moving through all the processes to position themselves toward this very important project. The Bay of Fundy Exploration Centre, once established, would stand to benefit all of southwest Nova Scotia, particularly in the field of ecotourism.

We have also become a participant in the newly formed Friends of Islands Trails Society which is a not for profit organization

mandated to work with the Municipality of Digby in overseeing the operation of Balancing Rock and possible other trail developments to come. There is optimism within this group that sees a future where local trails will make us a destination for visitors and local citizens to share in these remarkable coastal opportunities and the mental and physical health benefits that accompany their use.

Make this a special year by visiting a new location in Southwest Nova Scotia and gain a new appreciation for what we have to experience!

Westport Village gets Needed Armour

By Roger Outhouse

For some time, a convoy of dump trucks and heavy duty equipment was very busy as thousands of tons of basalt rock were placed along the waterfront of Westport Village on Brier Island. Much of the required rock came from the northern shore of Brier but some of the larger boulders were brought from the mainland via ferries. The placement of rock and skillful positioning of each boulder is like carefully fitting a puzzle together to create a barrier that will withstand nature's power.

This huge project combined with improvements to the drainage ditches and drains in the village are an attempt to counteract some serious flooding and sea damage from high tides, heavy rains and storm surges that have become of increasing concern in recent years. The last serious barrier defenses of armour rock were erected after the Groundhog Day Storm of 1976, which devastated the waterfront of this coastal village along with many others in Southwest Nova Scotia.

Over the years those lines of protection have settled, eroded, and been displaced to the point where climate change is on the minds of many as a challenge to coastal communities and their harbours. We need to continue to reduce, reuse, and recycle as a way of protecting the future of our coastal communities.



Family Resource Centre Meets Critters

By Roger Outhouse

On August 14 the Bay of Fundy Discovery Centre Association made a visit to the Digby Family Resource Centre to introduce two groups of young children to some of the wondrous creatures that live along the marine shoreline of the Fundy. The tides were in that day so we compromised by collecting specimens the previous afternoon, refrigerating them until the next day and displaying them in a small aquarium and holding containers for all to see.

Creature feature performers included Soft-shelled Clams, Isopods, Amphipods, Green Crabs, Rough and Smooth Periwinkles, Dog Whelk, Green Sea Anemone, Clam Worms, Spiral Tube Worms, Bamboo Worms, Barnacles, Fifteen Scaled Tube Worm, Ornate Worm, and Horse Mussel.

The aquarium allowed the participants to view barnacles feeding and anemones waving their tentacles in search of food. The Centre's young people had a chance to handle some of the creatures. Although everyone had a good time it was not the same as the full seashore experience we had the previous two summers. Hope to see you all again next year ON THE BEACH!



Checking out the displays



About 18 Resource Centre youth got up close and personal with marine life.

GOMI says, "Thanks," with a Tree



The GOMI Maritime teams from Nova Scotia and New Brunswick provided a tree to Acadia University as a contribution of our 2012 mini conference there. The tree is being stored temporarily at the Irving Environmental Centre and will find a permanent location in the Fall planting season. This is the second tree that GOMI has presented to the University. The first is doing very well in the large entrance lawn. We look forward to seeing this new oak in its final setting.

GOMI Summer Conference Participants Remember...



The GOMI Summer Institute members planted a tree during the closing ceremony at Adelynrood in Massachusetts.

Jessica Baiser remembers...

My experience at GOMI was wonderful, one of the best learning experiences of my life, so far. I made so many great new friends, learned important things about the Gulf of Maine and the environment itself. We had fun activities as well as great group activities.

We did a kayaking trip around Plum Island, learned stuff involving salt marshes and had a talent show, which was fabulous because everyone there was very talented. This had to be one of the best weeks of my life, though what we did was harder work than first expected. I had a great time with my lovely group and everyone there was welcoming and friendly.

I can't wait for next year, because we will be hosting at Acadia University, which will be fun!

I was in the National Capital Theme group, which was a small group of 7 girls. We learned about oil spills and how much they can affect the wild life and salt marshes and what it takes to clean one up. We learned about getting things back to the way it should be, like restoring the animals and other wild life in the area. We talked a little bit about how an oil spill interrupts the breeding system because when

it kills off birds it also destroys the possible chicks they could have produced. So we did an experiment predicting the loss of dead oiled birds we could possibly find after an oil spill, taking into account that we have not found them all. We tried to figure out the cost of reproducing the birds in captivity and then releasing them back in the wild. We wanted to see how long it would take to get the percentages back up to what it should be. At the end of the week our theme group made a presentation to the rest of our GOMI peers and a panel of distinguished guests about what we had learned the past week and what we did.

I would like to thank everyone who helped out with this GOMI conference, especially Roger and all of the team leaders, without them, it would never have happened. I would also like to thank Adelynrood for putting up with us for the week, it was a nice place and they had a wonderful staff and great food!

GOMI Conference: Great Opportunity- by Page Ivens

My GOMI experiences have been great. The conference in Massachusetts was really amazing, I made friends for life and I cannot wait to see them next year.

More importantly, I learned a lot about the environment; mainly about climate change because that was my team's theme. I learned all about speaking in public and preparing speeches. One of the things that I did in my theme team was survey the citizens of Plum Island, Massachusetts, asking them about climate change. I really enjoyed that because it was really interesting to see what people knew about climate change and how prepared they were for these changes.

I really enjoy GOMI and I'm looking forward to even more great experiences.



Kayaking was a new experience for most GOMI participants.

Ashley Smith Remembers...

Our conference this year was held at Adelynrood Conference and Retreat Center in Byfield, Massachusetts. Adelynrood was amazing, the staff and workers there were amazing, and the overall experience they provided there was amazing.

I was in the Water Quality theme team. In that team, our group went to selected locations around the area to test the quality of the water. We tested the water for a number of things, such as phosphate and dissolved oxygen levels. We then compared the results to tests done in previous years. The instruments that we used to do the water testing were fascinating, and I enjoyed getting to see them in action, and actually using them myself.

One of my favourite experiences on this year's annual conference was the stargazing. The local astronomers club set up extremely large telescopes in the field next to Adelynrood and set them on specific points in the night sky. Through these telescopes that night we were able to witness phenomenal things, including the planets Saturn and Mars, and a Ring Nebula. For those of you who might not know, a Ring Nebula is when a galaxy, containing planets and stars just like our own, explodes many lifetimes away. Once it explodes it forms a massive ring in the universe that we call a Ring Nebula. Through

those very powerful telescopes that night, we were just able to faintly see what appeared to be this tiny little ring off in the distance. Ring Nebulas only last for so long until they fade away from our telescopes' reach, and the particles and debris that make up the rings go back to their original state and once again get dispersed across the universe. I am very grateful that I got to see it before it was gone forever.

I love GOMI because without it I wouldn't have been able to experience that wonder that night, or have been able to share it with all of you. I still would be wondering what Saturn *really* looked like in real life.

I love the Gulf of Maine Institute for it reassures me that there really are people out there that care about what happens to our future and more importantly are willing to do something about it. I love being apart of something and feeling like I've made a difference at the end of the night.

Shealee Newman's GOMI Experience...

This year marked the end of my GOMI conferences. It saddens me but at the same time it makes me happy to see that our 'little' team is growing in numbers and will continue to make a difference in our area. The past four years have been an amazing experience. They helped shape me into the person I am today as well as teach me some valuable lessons that I will carry with me into the next chapter of my life. GOMI will always have my respect and help if need be.

At this past GOMI conference, I was in the 'Looking to Our Future' theme team. It was the first time in all my conferences that I had ever been in a theme team like it. My leader was Dan Earle, who did an amazing job. I couldn't have asked for a better leader on my last conference. Our team was all about helping Adelynrood (retreat/conference centre) plan for future changes they may want on their site. Before we arrived, the companions of Adelynrood compiled a list of things they wanted to have put in, such as a walking path around the grounds and other things that could enhance the property and make staying there even more enjoyable. We took a walk around the area and

started to plan where things could go. My personal project was to plan and design a playground area that would encourage young families to come and stay. Other projects that my teammates did were plans for a winter facility, making a quiet area, 'The Labyrinth' more private, and creating a more enclosed special place around a burial site. This has definitely had to be one of my favorite theme teams that I have had the privilege to be part of.

Over the years I have met some amazing people, done some pretty amazing things, and learned more than I ever could have hoped for. GOMI has the power to change any young person's life if they choose to let it. It took a shy girl from grade nine and helped her gain confidence and courage in her ability to accomplish anything she wants. I still get nervous public speaking, but I no longer feel like I'm going to cry, and that has to count for something. I would like to thank Roger for giving us all the chance to have these experiences, Mrs. MacKenzie Kelly for being such a helper on this trip, and also everyone involved in GOMI who make things happen every year. I will never forget my time spent with GOMI, it's been an awesome ride!



The Woodlands theme team cleared, repaired and labeled existing trails on the Adelynrood property.



Last Day: Theme teams are prepared to present their week's work to a panel of guests including GOMI board members and scientists.

Believe in Our Youth; They are Our Future Leaders

-Anna-Marie MacKenzie Kelly

I had the pleasure of joining the Digby Neck/Islands GOMI Team at both the Spring conference at Acadia in May and the Summer Institute at Adelynrood. The most important thing I learned is to listen to our youth. The participants at these conferences not only have visions for their personal futures but for the future of our natural environment as well.

These being my first GOMI experiences, I started out in my teacher role and soon realized I had to remove the teacher hat, take a step back and let the youth participants do their thing. It was wonderful to listen to them, watch them and learn from them. They are truly concerned about the future of our natural environment and are willing to work hard to make a difference.

There were no borders evident as youth members from New Brunswick, Nova Scotia, New Hampshire and Massachusetts came together to share their concerns and show the strength of teamwork.

By observing what this wonderful group accomplished in one short week, one can just imagine what could be done ...

GOMI DEPENDS ON FRIENDS
By Team GOMI- Digby Neck and Islands

Our entire team would like to thank our supporters: The Board of Governors of the Gulf of Maine Institute, Islands Consolidated School staff and administration and the Tri-County Regional School Board for supporting our participation in the summer conference. Special thanks also goes to the Municipality of Digby, Freeport Community Development Association, Islands Home and School Association and the Bay of Fundy Discovery Centre Association for financial assistance on travel costs. We could not have done it without your encouragement.

Many thanks from the 2012 summer participants (see photo on right.)



Digby Neck/Islands Team members in front of the newly planted tree at Adelynrood. Left to right: Roger Outhouse, Ashley Smith, Jessica Balser, Faith Titus, Kayla Balser, Molly Graham, Shealee Newman, Page Ivens, Anna-Marie MacKenzie Kelly

Teamwork on the Balancing Rock Trail

Digby Neck & Islands GOMI (Gulf of Maine Institute) Team did a spring cleanup along the Balancing Rock Trail. The youths made a clean sweep of the plant debris along the hundreds of steps descending to the world famous Balancing Rock and cleared away the branches along the trail. The Municipality did some last minute improvements in preparation for the trail opening in May.



Sad Ending for a Visiting Basking Shark

By Anna-Marie MacKenzie Kelly



This basking shark was about 9 metres long and weighed over 3600 kg.
Karen Montin photo

In mid-July, this basking shark first paid a visit to Stanley Stanton's weir in Sandy Cove. At that time, Stanly and his crew were able to free the shark and send it on its way. It must have liked the Sandy Cove hospitality because it returned on July 31. This time, however, it became entangled in the netting as the crew attempted to release it and there was a fear it would pull the boat down and they would start to take on water.

They were able to pull the shark ashore and free it from the netting but the struggle was too much for the shark. This was an interesting sight for visitors to Sandy Cove beach but a sad day for one enormous basking shark. The shark later floated out with the tide.

Thanks to Cindy Graham for sharing this story about the shark and to Karin Montin for providing the photos.

Photos copyright Karin Montin 2012



Creature of the Cove – The Pink Sea Cucumber (*Leptosynapta roseola*)

By Roger Outhouse



This particular marine creature has two other local species, one being a small white silky version and the other much larger version that is brown in color and has been marketed commercially. This larger version has been thought of as one of Nova Scotia's "Cinderella species", which is to say it may have a bright commercial future. This bigger specie has a leathery covering which is cut in strips, boiled and dried before turning it into a delectable French specialty dish called "beche de mer". In the Orient they use this ingredient for a soup dish called "trepang".

The pink sea cucumber is only a few centimetres long and has no commercial value. It lives in shallow seas of the North Atlantic and can be found in intertidal zones and tide pools,

usually under stones or in gravel. It is related to other echinoderms (spiny skinned organisms) including starfish, urchins, and sand dollars. This softer pinkish specie has rows of tube feet that are important for slowly moving along the bottom and attachment to stones and gravel. Some of the suction like feet have adapted into extended tentacles surrounding the mouth. These secrete sticky mucus that traps plankton and organic matter that is then forced into the mouth for digestion. Scientists think that small crustaceans and mollusks might be part of that diet. Sea cucumbers literally eat with their feet. After passing through a relatively long digestive tract the wastes are secreted from a posterior opening.

This creature is often well concealed and gains its protection that way. We know that there are separate sexes with the male producing sperm and the female eggs. These

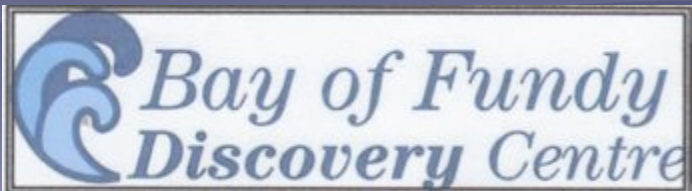
are released in the summer months and combine to form a free-swimming cilia covered larvae which undergoes a rapid metamorphosis in three days to become a tiny sea cucumber which sinks and becomes a permanent bottom dweller.

What makes this creature so amazing is that we know virtually little about its behaviour, physiology and life cycle in the wild and what its actual role in the environment is! As humans we often hear statements from companies and governments that chemicals released accidentally or by design have little impact on sea life. Given that we know so little about the pink sea cucumber and thousands of other little studied creatures those statements of comfort may be hollow. How can we be confident when in fact we know so little about the thousands of marine species that we are entrusted to protect?



GOMI Summer 2012 participants say good-bye to Adelynrood

Sue Hutchins photo



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