



# In With the Tide

Bay of Fundy Discovery Centre Association Newsletter

Volume 2 Issue 2

## A Positive Community Effort

By Roger Outhouse



To celebrate the Victoria Day weekend the Digby Neck/Islands GOMI Team traveled to Gulliver's Cove on Saturday to assist the community in a major cleanup of the beach area. The pile of garbage that was collected is evidence of a day well spent in not only cleaning up a beautiful area of coastline but also ridding the environment of plastics which degrade our marine areas. It was great to help out community members who are transforming this spot into a great place for us to visit and enjoy. Take the time to visit; you won't be disappointed!

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Can you identify these natural beauties? Check your answers on page 8

## ABOARD HMCS ORIOLE

By Kayla Tidd



A few months ago, I was handed an application form to travel to Victoria BC, and work on one of the most prestigious HCMS Naval tall ships on the west coast, the Oriole. When the e-mail of my acceptance came through from Victoria I decided I should tell my parents exactly what I had gotten myself into. They gladly flew me out to the west coast and I boarded the tall ship Monday afternoon, March 29, 2010.

It was windy and rainy but we set out toward the snow covered mountains. There were 14 students aboard holding the position of the ship's crew. A graduating student of lower Sackville and I were the only crew members selected from Nova Scotia. Our first task was to put up the sail located

at the bow of the boat. We were all green horns but surprisingly it went up quite smoothly.

Then the wind picked up and shifted directions, we needed to take the sail down quickly. There were only four boys on this trip and it just wasn't quite enough strength to get the sleeve pulled down over the sail, the wind was strong and we all stayed close to the deck.

The commanding officer who was in charge of the ship and our safety, the man we called Buffer, ordered me to hold a rope tied to the top of the sail, also known as a halyard. Now maybe it didn't occur to him that I weigh a total of 120 pounds, not nearly heavy enough to hold the strain of a giant sail, but then again we were all in a panic to get the massive sheet of material down.

Just then a huge gust of wind swept across the deck and caught the sail, the rope in my hands tightened

and my butt lifted right off the deck! There was no way I could continue to hold the rope without going off the side. I turned and yelled for help; three girls grabbed me and held me down to the deck. Still that wasn't good enough; the wind was too much for the sail to handle and before the captain could cut the rope the whole sail ripped right in two! So there we were on the very first day, and already ruined a \$14 000.00 sail.

The next few hours were quiet, and the next few days were bright and sunny. We sailed all through the islands off of Victoria; the scenery was so different and beautiful. We were taught how to map the path of the ship, tie knots, run the zodiac boat, and navigate.



On the third day of the trip we were on our way to Albert's head to dock the boat and spend the night. We sailed out around the oldest lighthouse in British Columbia, I was snapping pictures left and right, then three high powered zodiacs zoomed by the ship. They were whale watching boats, before we knew it we had sailed right up on a pod of twenty orca whales!

Where I live every other boat in the summer time is a whale watching boat, I've seen a lot of whales, but a killer whale- I never imagined I'd get the chance. They put on a great show, one breached right in front of our boat; they were hitting their tails on the water and showing off. We were very lucky to have seen the orca whales; this was a major highlight of my trip. Because we were traveling on the Oriole, the fastest tall ship on the west coast, the whale watchers soon motored over to look at us.

I've never sailed before in my life, I'm used to jumping aboard a lobster boat when I travel the waters. One huge difference I noticed was the amount of safety issues a



Kayla at the helm!

sail boat brings with it. It seemed like every wrong pull of a rope, or tie on a cleat could get us all killed.

The Canadian Navy welcomed us aboard the Oriole, and we were to follow their way of life.

We scrubbed the boat every morning and polished everything shiny. I've never seen so much brass and stainless steel on a boat!

We had a colour ceremony every morning and evening where we raised the flags all over the ship.

I would do it again in a heartbeat. I felt it was worth every second of my time. The west coast is just as great as the east coast.

### Idle-Free Facts for Canadians

By reducing their idling by five minutes a day the average Canadian has an:

§ Annual Fuel Savings: 41.98 L/yr

§ Annual GHG Emission Reduction: 0.10 tonnes/yr (or 100 kg/yr)

§ Annual Reduction in Fuel Cost: \$34.14 per year

This is equal to not driving their vehicle for over 11 days.

(Facts calculated when fuel was \$0.81/L)

[http://www.idlefreevt.org/idle-free\\_stats\\_oenrc.pdf](http://www.idlefreevt.org/idle-free_stats_oenrc.pdf)



## CAN DIGBY COUNTY BECOME AN ENERGY GIANT?

By Roger Outhouse for the Bay of Fundy  
Discovery Centre Association

A long time ago I learned that being a “giant” does not mean bigger, braver, or smarter; it simply can mean to be observant, logical, responsible and responsive in a world that defies many of these virtues. We live in an area which has typically been described as lagging behind the rest of the modern day world, but to Digby County’s credit it also creates the ideal opportunity to learn from other situations and become the best we can in the field of energy.

Experiences in the Gulf of Maine Institute (GOMI) over the past four years have allowed our youth teams from the Maritimes and New England to talk to scientists, researchers, government planners and citizens from all over the Gulf of Maine. It has been a fascinating revelation of what we have and how we must support each other in numerous ways to have a sustainable future. By focusing on regional concerns and sharing our common experiences, a larger canvas has been created. We are all facing a paramount challenge of global climate change and its connections to energy production and consumption.

It would seem that despite our efforts to curb energy use and become greener we are still not getting a handle on the situation. I could go on and write a doomsday scenario about global warming and predict we are never going to take action in time but that is counter-productive and creates greater apathy among humans. It is in fact similar to having a predator facing its prey; simply seeing the over powering horrific odds of survival is enough to freeze the victim in its tracks and robbing it of taking a few simple steps to move in a safer direction.

We at GOMI believe that WE DO HAVE

THE POWER! To many, the climate change situation boils down to a question; is it true or false? Unlike the normal true and false question there is a third answer which makes an even more sensible approach; that being “it makes no difference”. It is best to seek out a world which pollutes less, creates healthier environments for all God’s creatures, and conserves the planet’s resources. In short it does not matter if you agree or disagree with the two sides. We should simply be observant, logical, responsible and responsive to what is best and we are all on the same side. Being good stewards simply requires all of us to adopt behaviours to make a difference.

Some think we will all have to be perfect at everything we do but the real truth is that some of us are great at some things and worse at others. I try to tell people that one can have the most fuel efficient vehicle in the world while someone else is driving a big SUV-- the person driving the enviro-friendly auto can drive like a maniac, get poor mileage and wear the car out in a couple of years while the SUV driver might only use it for few trips, drive to get maximum mileage and carefully maintain it for a decade of service. Who is the best steward in the energy challenge?

The moral is that we all have positives and negatives and each one of us can make improvements. Digby has the amazing opportunity to be a leader in the production and use of energy. I see leaders, businesses, and citizens trying to create energy efficient improvements in transportation, public infrastructures, dwellings and lifestyles. The Weymouth Library, the new Tideview for seniors, the Municipal Building project, DriveWiser Program and home energy projects are all great examples.

Wind, solar and possible tidal developments are gateway opportunities to future economic sustainability and a plus for the planet. Of course it will take some time to figure out all the checks and balances but DIGBY COUNTY has the real opportunity to create a society that produces in excess of its energy requirements. That is potentially an amazing achievement and contribution to the future. Even future electric cars could be charged at night by green energy.

Each time we conserve energy, support green energy, reduce consumption and recycle we are improving our situation. Some people see these issues as local ones but I would remind everyone of this. Many years ago a school resource book was produced for students called “There Is No Away”. As the title implies we have but one planet that we all inhabit and we cannot escape the fact that what we do impacts all of us.

After conferring with local experts around the Gulf of Maine I can say that when we use less energy than we produce we can help other areas in this province, New England or central Canada by selling them our excess. Those areas survive on energy produced by blowing up mountains for coal fired electrical generation or burning other fossils fuels that create harm to health and environment. Many of those noxious pollutants and their effects are carried directly to us by prevailing winds. We have experienced this first hand in our area with smog mixed with fog from New England and smoke from forest fires in Quebec.

To think we can remain pristine while other areas carry the problem is naïve at best. Digby can be a giant by creating green energy and contribute to the solution rather than be part of the problem. One less power plant required means a living mountain can stay intact or a child can breathe healthy air; these are victories for all of us. Remember, “there is no away”.

## TOUCHING BASE AT DATA SHOWCASE

By Anna-Marie MacKenzie Kelly

The Digby Area Tourism Association (DATA) Showcase [provided a perfect opportunity for members of the Bay of Fundy Discovery Centre Association to present information about some of our ongoing projects as well as a chance to connect with the wide range of organizations, businesses and individuals in our community who are working to spread the word about our vibrant communities in Southwest Nova Scotia.

Forty-two displays were present with 84 exhibit participants and about 60 visitors. We were successful in increasing our on-line readership of *In With the Tide*, and also increased our membership. A special thanks to DATA and congratulations to the quality of the participating groups. From the point of view of the Bay of Fundy Discovery Centre Association it was our most successful year yet .



## PRESTIGIOUS SCHOLARSHIP FOR TERESE CROCKER

By Andrena Teed

Terese Crocker, of Freeport, has been awarded a full scholarship to complete the International Baccalaureate Diploma at the prestigious Lester B. Pearson United World College of the Pacific in British Columbia. The scholarship is granted to students who achieve academically, actively participate in their school extra-curricular activities, and who are involved with their community. Terese Crocker fits all those requirements; her curiosity and interest in global events, environmental issues, and human rights added that extra dimension that the United World Colleges look for in prospective students.

Terese sent her initial application to the College in December. She was interviewed by College representatives in late April, and within a few days of that, she was informed that she is this year's Nova Scotia recipient of the scholarship. Terese will be attending Pearson for the next two years. Every year up to 200 students from approximately 100 different countries are selected to study at Pearson based on their promise and potential to make positive contributions to their communities and countries.

"I am looking forward to this." said Terese. "Pearson College will be a great opportunity to learn more about what is happening in the world beyond my back yard. I know that it will be stressful in the beginning, but I'll not be the only one who is new to the IB."

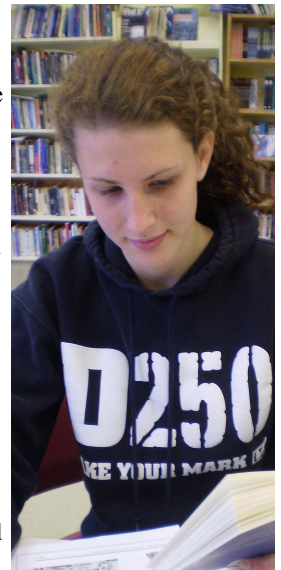
The International Baccalaureate Diploma is an academically challenging two year pre-university programme. Students develop a breadth and depth of knowledge and skills in languages, social studies, sciences, mathematics and the arts. They must complete an independent research project, learn about the theory of knowledge, and actively participate in community service projects. The IB Diploma ensures entry into quality universities worldwide.

The Pearson is one of 13 United World Colleges. These colleges aim to educate young people towards peace, compassion, and global understanding. Students, faculty and staff, from a variety of nationalities and backgrounds join in a spirit of cooperation and camaraderie to learn and serve their communities together. "This is so exciting. I'll be meeting students from different cultures and learning about them." commented Terese. Her plans for the future are, like any teenager's, wide ranging and idealistic. Learning at Pearson will introduce Terese to ideas, activities, and prospects that she may not be thinking about at this point.

Pearson College is located in a temperate rainforest, with marine activities nearby. Students participate in a range of extracurricular activities, from theatre to scuba diving. There is an opportunity to work as an eco-guardian in the rainforest, or at a nearby marine reserve. "I'd love to do that, to see the benefits

and bring it home. We could still have fishing and whale watching, but maybe we could also create a marine protected area here. I really think the fishermen could go for it." said Terese.

This summer she will attend several social events prepared by the Lester B. Pearson College representatives where she will meet current students, and familiarize herself with the IB Diploma programme and the United World College expectations. Terese said that she is looking forward to it all – the summer events, the first days and months at Pearson, the academic rigour of the IB, and the community service activities that are part of the programme. It is not difficult to understand why she was selected from the Nova Scotia applicants to receive this full scholarship to Lester B Pearson United World College of the Pacific.



GOMI & Bay of Fundy Discovery Centre Association member, Terese Crocker is looking forward to a west coast adventure.

## EXPLORE WITH GOMI

By Roger Outhouse

During recent Islands Consolidated School exploratory activities, eight students along with David Tudor, Pascal Cork, and me took part in a session called "Explore with GOMI" (Gulf of Maine Institute). The presentation introduced the work and philosophy behind the organization of youth teams throughout Nova Scotia, New Brunswick and New England which strive to help protect the whole Gulf of Maine watershed by sharing in projects that are carried out in local areas. The group also created questions to assist in the creation of virtual geo-caches using the five panels on Global Climate Change found in Northeast Cove.

The Digby Neck/Islands Team members shared their current project efforts with the group. We did an environmental clean up of the salt marsh at the head of Northeast Cove, Fundy

View Trail and Cow Ledge Road along the Fundy to Beautiful Cove Road. Our GOMI youth also presented their current project proposal for a "Real Garden", Hiking Trail and Nature Classroom.

All participants assisted in information gathering for establishing five new geo-caches for Northeast Cove to boost ecotourism for the area.

While our group did a fantastic job in collecting a truckload of garbage we were also keeping track of the number of pieces of plastic we collected. There was over 1100 individual plastic pieces of all sizes. The participants noted that over 80% of our cleanup items were petroleum based plastics and these materials pose major threats to marine life at all levels of the food chain. Plastic lasts a very long time and

much of it gives off toxic materials; we ask everyone to help by disposing of plastic in appropriate ways of recycling or garbage disposal.

Special thanks to Andy Moir for transporting all the garbage with his truck. Chalk up one for the environment!



The GOMI participants were a happy beach sweep crew but nobody was more excited than our four legged mascot Chiho dog bera.

## CREATURE OF THE COVE-THE HORSE MUSSEL

by Roger Outhouse Bay of Fundy Discovery Centre Chairperson

Sometimes some of the most important marine animals are truly overlooked and this is definitely the case for *Modiolus modiolus*, or horse mussel which is its common name. These creatures are most often forgotten as they inhabit lower tide pools and sub tidal habitats. In the past they have been great food items for First Nations and the early settlers. During the lowest of tides these tasty creatures were pried loose from the rocky crevices and gravel/cobblestone surfaces where they glue themselves in place with a solid web like gluey byssal mat. Some animals even adhere to the holdfasts of kelp stalks. The only times we get As a young boy I can remember going to the shore on low tides with my father and reaching out with a rake to pull some of the specimens from water well beyond our reach. After collecting a couple of buckets we would take them home, clean them off with a scrub brush and then steam them until the shells opened. The flavor was excellent and even though someone once said the meat reminded them of baby robins I have always held their taste in high regard. Unfortunately the areas around our Islands and Digby Neck are posted as off limits for harvesting as there is a risk of bacteria contamination or paralytic shellfish poisoning. They continue to be key components in the diets of Bufflehead and Golden eye Ducks, Herring Gulls, Black Guillemots, whelks, large codfish, starfish, and crabs.

The bivalve (having two shells) mollusk can grow 200 mm long and live up to 100 years. The thought that there is a horse mussel out in the cold depths of the Fundy that is as old as most of our great grandparents is mind boggling. There are male horse mussels and fe-

male horse mussels that look virtually identical. One female can produce about one million eggs in a spring to summer breeding season. The fertilized eggs become swimming larvae which can disperse themselves over distances of a 10 kilometer radius (more depending on the currents) before settling to the bottom over the next 11 to 30 days where they find suitable areas to attach and grow. Unfortunately the time of year is nice and the areas they select will become massive killing



grounds in the winter months as the seas literally tear up the bottom with shear force of the waves or grinding actions of ice flows. After a major storm the jetsam (debris washed up by the sea) often include massive kelp stalks, seaweed and dead mussels). Walks along the shore following these horrific gales often reveal high and dry what was previously hidden below low water mark. Please be very careful not to approach the waters edge in these aftermaths as rogue waves have been known to sweep people into the dangerous surf. Gulls take full advantage of these turbulent days as all you can eat buffet events and will pick up mussels in their beaks and fly high in the air dropping the unfortunate creatures to smash on rocks, wharves, and even

vehicles. Once the protective shell is crushed the mussel is greedily consumed.

Horse mussels can be found in vast beds between Digby Neck and Grand Manan in depths up to 145 m (480 ft). While they exist as vast numbers, small colonies, or even solitary individuals and are a very important source of food for many predators that is not the most vital aspect of their existence. Whenever I take people to the seashore I like to find a colony of horse mussels in a shallow tide pool. There they blend in with the rocks often covered with pink coral and brilliant yellow sponge which dissolves into the shell for a support base. After carefully dislodging one or two from the bottom it is fascinating to see the vast numbers of marine worms, small crabs, whelks, limpets, chitins, pure white sea cucumbers and a host of microscopic critters and plants too numerous to mention. In short the horse mussel provides wonderful habitat for millions of other living organisms and yet we see these filter feeders as lowly creatures of little significance. We know that this animal concentrates

all its energy in growing as fast as possible and even delays reproduction to achieve this growth. Once it is over 45-65 mm in length it is relatively immune from predators; hence its long lifespan Just imagine that these ancient beds coating the bottom can preserve the ocean's food web by providing protective habitat for many species. Any process that destroys these rich bottom environments can play havoc with the Fundy's ecosystems.

The next time we ask ourselves why the fisheries in the Bay are struggling and are desperately seeking solutions perhaps we need to consult the horse mussel to literally get to the BOTTOM of things

The newly constructed parking lot at the head of the trail was eventually hidden by a massive mountain of old lobster traps and gear. This was one BIG cleanup for the participants in the "Sweep and Plant Volunteer Work Experience" on Brier Island's Nature Conservancy property.



## ENVIRONMENTAL WARRIORS BAND TOGETHER

By Roger Outhouse

From May 14<sup>th</sup> to the 16<sup>th</sup>, Gulf of Maine teams representing Sackville, N.B., Barrington, Shelburne, Bear River and Digby Neck/Islands came together at the Annapolis Basin Conference Centre. The first evening was spent in warm up activities, teams making brief presentations about their home area projects and getting to know one another.

The next day was very busy with presentations by Andy Sharpe of the Clean Annapolis River Project (CARP), importance of wetlands, sessions dealing with invasive and endangered species, a coastal hiking activity involving GPS community mapping, and some evening game activities around migration and species at risk.

Sunday morning saw an early departure as teams made their way home keeping in mind that the international GOMI week long work-



shop will be back at the Conference Centre in June when five additional teams from New England will be joining with us.

GOMI Teams learn how to do battle for the environment. Invasive species, endangered species, protecting migrating wildlife, saving wetlands, and sustainable green space were all among hot topics discussed.

## GOMI IMPRESSED WITH NATURE CONSERVANCY'S EFFORTS

By Roger Outhouse

GOMI members recently participated in the "Sweep and Plant Volunteer Work Experience" on Brier Island's Nature Conservancy Canada property. It was informative, productive, exhilarating and even delicious when we calculated in the great BBQ provided by NCC staff.

The work accomplished by NCC staff, our GOMI Team, community members, and visitors from away was a positive step towards the creation of a 5 km trail from Pond Cove to Western Light. This area is a magnificent section of coastal Nova Scotia with the added bonuses of rare and unusual plants plus an astonishing variety of migrating birds. The

whole group was addressed by avid birder Eric Mills who pointed out the active nesting areas for various bird species while Craig Smith gave an introduction to the Conservancy's work and their plans for their project on Brier.

Some native plant species were lovingly planted, two truckloads of debris were collected (mostly lobster traps and gear) and ropes were placed to encourage ATVs and hikers to use the trails and allow other areas to grow back to productive habitat for wildlife. Our youth hope that we all will do our bit to help the NCC protect this natural wonder for future generations; together we can make it happen!



Jimmy Outhouse (Westport Village Commissioner) assists Digby Neck / Islands GOMI youth with the planting of some White Spruce and Yellow Birch.



Far left avid birder and nature lover, Eric Mills and far right Nature Conservancy Canada's Craig Smith. Both talked to GOMI youth and volunteers about the significant contributions the area makes to migrating birds and plant life.

## COME ON DOWN! By Anna-Marie MacKenzie Kelly

Did you identify Red Maple Samaras (seed cases), bunchberry and skunk cabbage? These are just a few of the hundreds of species found along the trail to the balancing rock.

Take a few days this summer and visit Digby Neck and Islands Scenic Drive (rte 217). There are many places to enjoy before you board the ferry. Stop at Lake Midway for a picnic and refreshing swim then wander the white sand beach in Sandy Cove. Don't miss Little River's Look off and Tommy's Beach. Venture off the main road to see the fishing villages of Gulliver's Cove, Centreville and Whale Cove. As you wind your way to East Ferry breathe in the salt air and admire the beauty of the passage.

Long and Brier Islands offer many more surprises with hiking trails to many special Bay of Fundy natural treasures and interesting place names like Flour Cove, Over Cove, Scattering Cove and Hog Yard Cove. No doubt, you will see sunbathing seals in Seal Cove.

### Bay of Fundy Discovery Centre Board of Directors for 2009-2010:

Roger Outhouse (chair),

Peter Morehouse (vice chair), Anna-Marie MacKenzie Kelly (Secretary & *In With the Tide* Editor)

Terese Crocker, Pat Sollows, Bonnie MacLaughlan, Wanda VanTassel

Advisor:

Kathleen Shea



GOMI teams were literally blown away at the Delap's Cove hiking trail—

Educational and breathtaking!



Bear River Team Leader Merwyn Longmire gives an historical introduction to GOMI youth before heading out to explore the beauty of the Delaps Cove hiking trail along the Fundy shore.