

In With the Tide

The Bay of Fundy Discovery Centre Association Newsletter



Our Fundy-Our Future

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Sweet Smell of Success

From the Digby Neck / Islands Gulf of Maine Institute Youth Team

Just in case you are looking to hasten the glorious days of summer and want to forget the winter snow drifts we would like to offer our readers in the local area a free resource to get you smelling the roses early and get you buzzing about starting a brand new hobby which will have you savouring the sweet smell of success in no time.

Have you ever wondered what it would be like to have a queen come to your very own home or become the master of hundreds of workers dedicated to sweeten your life? You've guessed it! Carter Thurber models the necessary regal headgear to reign over such an empire as he holds a copy of "The Complete Idiot's Guide to Beekeeping"- Everything the budding beekeeper needs for a

Carter Thurber is ready to work with the bees and to share his knowledge with you.

healthy, productive hive. Carter had the opportunity to take part in the Gulf of Maine Institute last summer in Mass. USA and he worked with a team of youth led by the guide's authors, Dean Stiglitz and Laurie Herboldsheimer. Dean and Laurie raise bees, participate in research and also have conducted international conferences on the topic of managing apiaries (hives).

If you live in the area and would like to borrow the book to determine if you would like to begin your own production of honey and create badly needed pollinators for our world. Maybe you would just like to learn more about the wonderful world of bees and how honey is produced for table. Simply call Roger Outhouse (902 839-206) or Anna-Marie MacKenzie Kelly (902 834-2370) and we will arrange to get the book to you.

Brier Island & Offshore Waters Important Bird & Biodiversity Area (IBA)

By Sue Abbott, Bird Studies Canada

sabbott@birdscanada.org

Most of us know that this part of Atlantic Canada is a very special place rich with wildlife and unique plants. But did you know that Brier Island and Long Island are part of a globally significant Important Bird & Biodiversity Area, or IBA?

What is an IBA?

IBAs are places of outstanding value to birds and other biodiversity around the world. IBA sites support high numbers of birds, threatened or endangered birds, or birds with very limited ranges. Since the IBA program was established by Birdlife International, it has grown into the world's largest network of ecologically significant sites for birds and other wildlife. In fact, over 12,000 IBA sites have been designated globally, of which 600 are in Canada and 32 in Nova Scotia.

IBA sites can be small or large, land or water, and privately or publically owned. IBAs are identified using criteria that are internationally agreed upon, standardized, and scientifically defensible. IBA designation does not necessarily lead to legal protection of the area, and many diverse activities are often allowed within IBAs. In Canada, IBAs have been used to design conservation reserve networks, prioritize lands for conservation and protection, and assess impacts and establish guidelines for proposed development projects. As is the case of Brier Island & Offshore Waters IBA, they are places where we can enjoy nature and grow eco-tourism opportunities.

Why was Brier Island and its offshore waters designated an IBA?

Brier Island and its offshore waters qualify as an IBA because of rich marine and terrestrial birdlife. During different seasons, the area supports a variety of different birds in large numbers. Fall migration (July-October) brings songbirds and birds of prey (raptors) to the islands; shorebirds to the shores; and seabirds and unique sea-going shorebirds, called phalaropes, to offshore waters. Some seabirds, like Razorbill and Black-legged Kittiwake, feed offshore during winter. In spring and fall, Brant geese stop-over during their migration to and from their Arctic breeding grounds.

Beyond its terrific variety of birds, this IBA is also home to the endangered eastern mountain avens. A team of community members, conservation groups, lead by Nature Conservancy Canada, and government partners is working hard to recover this special little plant and its boggy home on Brier Island. The presence of this rare plant truly makes Brier Island and Long Island an outstanding example of an Important Bird *and* Biodiversity Area!

Five ways to learn more and get involved

1. Learn more about the birds of Brier Island & Offshore Waters IBA at www.ibacanada.org and by reading "Birds of Brier Island" by Dr. Eric Mills and Lance Laviolette (ISSN: 2292-7743 published by NS Institute of Science).
2. Add to our knowledge of birds by contributing your bird sightings to ebird.ca – a free, online tool for scientists, researchers and amateur naturalists to record and share bird data.
3. Support IBA biodiversity by participating in conservation projects such as the restoration of Brier Island's eastern mountain avens with Nature Conservancy of Canada (contact craig.smith@natureconservancy.ca).
4. Keep birds safe from harm by keeping cats indoors (see www.ecologyaction.ca/alliedcats).
5. Where possible, turn off or shield bright outdoor lights which can disorient migrating birds at night and lead to injuries or death (see www.rasc.ca/lpa).

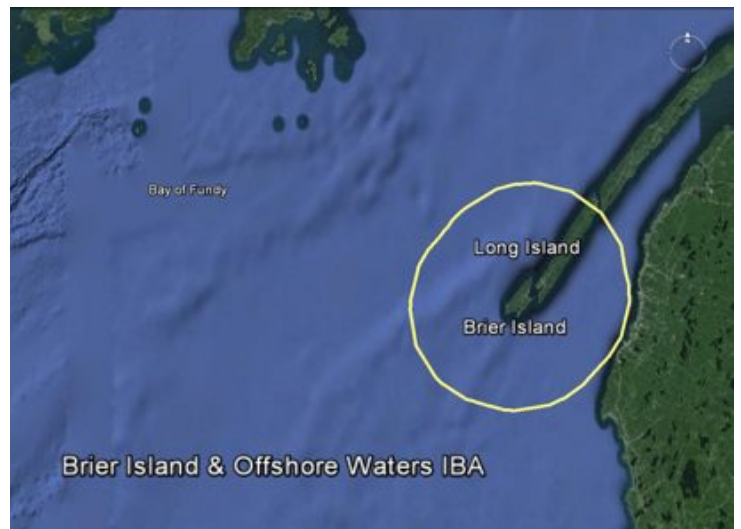
Great Shearwater gathers in the thousands to feed during fall. This seabird breeds on islands in the South Atlantic! Photo Rob Ronconi.



A group of volunteers posted this IBA sign at Pond Cove, Brier Island on one of Nature Conservancy of Canada's conservation properties. NS Habitat Conservation Fund provided support for this volunteer event. Photo Bird Studies Canada.



Map showing location of Brier Island & offshore waters IBA



Late again, Sorry!

It is nearly the end of April and I am just getting the winter issue done. Where does the time go? One thing I can tell you- I can still see snow as I look out my window- does this mean this issue is really not too late?

I thought sure, once I retired, I would have plenty of time to flow better with the tide! I will say, while many people were complaining about the winter, I was thoroughly enjoying being out in the snow, especially exploring so many beautiful vistas while on my snowshoes. I didn't even mind the shoveling, much. I will share some photos with you in this issue.

I also remember winter not even starting until mid-January. I was still picking vegetables from the garden and riding my bicycle in November and I picked herbs for my Christmas stuffing in December.

So, really, winter was only 3 months long, isn't that what we are to expect?

As soon as I press send when this issue is complete, I'll be dusting off my bicycle!

Enjoy Spring!

Anna-Marie



If you are interested in one of these / Share the Road magnetic bumper stickers, contact Anna-Marie.

Creature of the Cove: Common Snapping Turtle (*Chelydra serpentina*)

By Roger Outhouse

During the colder months from October to May this largest of all North American freshwater turtles has been hibernating under water in pond and stream sediments absorbing their oxygen from water by occasionally opening the mouth allowing the tissue lining of it and the throat to take in O₂. They survive the long ordeal by lowering metabolic requirements by reducing their heart rate to only a few beats per minute. Once spring arrives they will make their appearance as they hunt for food.

The snapping turtle has earned a reputation of being very aggressive and this comes about because they have adapted some scary features from a human perspective. First of all they have a very small lower shell (plastron) and are unable to retract their head, feet and tails into the protection of the shell like other turtles. This means that when they rarely stray from the protection of water they become very aggressive when approached by predators or curious humans. In water this animal is more likely to be in flight but on land they are ready to fight. The snapping turtle has a very long neck that can reach out with powerful jaws and a sharp beak delivering a serious bite. No other

turtle can defend or attack in this manner. Add to this a loud hissing sound and this reptile can look and sound pretty menacing.

Because of their inferior shell defence they stay mostly in water except for females venturing on land in June to lay their 20 to 40 eggs in nests they dig in sand, gravel or soil of nearby beaches, roadsides, woods or gardens. After covering the nests, the females move back to the water. About three months later the young hatch and seek access to water immediately. If the above ground weather conditions are cold when the young hatch they have been known to stay in the protection of the buried nest until the following spring when things warm up.

Unfortunately predators abound and in fact raccoons, coyotes, foxes and

skunks raid the nests of the unhatched eggs. While most literature reports this turtle as posing no threat to humans it is clear that snappers are described as mean spirited if they feel threatened and it is best to observe them from a distance. My wife once tried to do the right thing when she spotted a snapping turtle the size of a dinner plate slowly making its way across the highway near Bear River. Although not keen on reptiles she thought that she could help this rather large individual cross the road. She stopped the van, picked the critter up and was only a few moments into the rescue when it lunged out with its long neck and gaping mouth. Dorothy took offence to this ungrateful beast and dropped it immediately leaving it to fend for itself! Unfortunately

highways and increasing traffic is where these slower moving animals are at greatest risk and of course the sandy soils on the shoulder are attractive nesting sites. Since roadways are frequently patrolled by many of their predators a lot of nests are destroyed; thus roads are in fact a deadly triple threat.

I can remember reading in an older publication on Amphibians and Reptiles from the Nova Scotia Museum explaining that this



The prehistoric looking snapping turtle can live 25 years, weigh up to 16 kg (35 lbs) and have a shell 35 cm (14 inches) in length. Although the shells are brown they can appear greenish due to green algae growing on the surface.

rather feisty reptile would sometimes lay waiting in ponds using its keen sense of smell and not so great eyesight to locate potential prey including frogs, snails, fish, waterfowl and other small animals. It also described a single incident in Keji Park where a large snapper once grabbed a young child who was in the water and had to be beaten off by other adults.

In Nova Scotia, the snapping turtle population is found mostly in Southwest Nova Scotia while other

rare sightings in the rest of the province are most likely due to humans transporting the animals to new areas. This is in fact how they have finally made it to Long Island. We have had a number of sightings in recent years and the photos used in this article were taken of a female at the bottom of Lovers Lane in Freeport where the pavement ends and sandy gravel begins on the old road leading toward the Freeport Brook. On a broader range this turtle is found in New Brunswick and as far west as southern

Saskatchewan, and throughout the eastern and central United States as far south as the Gulf of Mexico and west to the Rockies. Although one might think the snapping turtle is doing well it has now been declared as a species at risk in Nova Scotia and Ontario. The greatest threats to the common snapping turtle are the loss of habitat to urban development and pollution of waterways; greatly reducing the reproductive success of these amazing reptiles.

Another Creature of the Cove: Common Razor Clam

By Roger Outhouse

For several years, I have known that a small population of this specie exists in Freeport's Northeast Cove but had been unable to locate a living specimen even though their empty shells are strewn here and there along the beach. Little did I know that this is no ordinary clam and there are good reasons as to why I had not been successful- this amazing creature is fast, elusive, a good swimmer and potentially dangerous under the right conditions!

The name "directus" means straight and "ensis" means sword. The clam can grow about 25 cm (10 inches) in length and about 2.5 cm (1 inch) wide. They can live up to 20 years and show annual growth rings on their shell. This bi-valve mollusk has some really great characteristics that one might not attribute to a clam that we often think of as slow and mostly inactive. The razor clam

is aptly named because its shell is long and slightly curved resembling an old-fashioned straight razor case used by men in the 1920s and 30s. Other nicknames also include Atlantic jack-knife clam or bamboo clam.

Originally I tried to find these creatures in the mud near low water but later learned they most often reside in mud, sand or even gravel below low tide just under the surface. Only the lowest tides will get you near their natural habitat. They feed through a very short siphon drawing microorganisms into the body by hair-like cilia on their gills. The organic mix of food is then funnelled into the mouth for digestion. One might expect that feeding so close to the surface would leave them exposed and easily captured by their natural predators such as green crabs, moon snails, milky ribbon worms, a variety of

shorebirds and humans looking for a nice meal. However the slightest predator vibration can set off an immediate defence reaction during which they rapidly sink their very large digging foot (which can almost equal the length of their body) deep into the mud. Next they swell the tip of the foot into an anchor shape and then contract the length of the whole foot muscle drawing the razor clam deep under the mud up to half a metre in only a few seconds, thus evading the enemy. It was also impressive to learn that the clam is a remarkable swimmer. It swims by retracting the whole foot into the shell and ejecting water in a repeated pumping action.

Their life in the mud is a challenging one. While it provides protection it is also tough on their thin shells and so they adapt by growing a protective shiny olive brown greenish shell covering called a periostracum.

The diet of this clam consists of straining micro-organisms out of the water and for an unknown reason they are more likely to concentrate the poisonous algal chemicals (such as those found in “red tide”) than other types of clams making them a greater danger to consume. Despite that factor they are considered to be a good clam to eat but mostly are harvested on a non-commercial basis.

Between 1951 and 1954 there was an attempt in Saint Mary’s Bay, Nova Scotia to harvest razor clams to supplement a depressed clamming industry. It involved mechanical pressure washers to get at the deeply located razor clams; as manually digging for them was a difficult process. Essentially this attempt met with poor results and was discontinued. While there is interest in the clam it turns out that

it does not ship live as well as other types of clams making it less desirable for markets. Despite the lack of commercial benefits there have been some interests in raising them in an aquaculture type of operation much like mussels. These have been mostly confined to some experimental research efforts.

Despite the fact that these coastal creatures are found in a broad habitat ranging from Labrador to Georgia they have not become commercially important. While the razor clam population seems stable other more easily accessed and desirable specie such as the soft shell clam have been heavily harvested and struggle to maintain their numbers.



A young Islands Consolidated elementary student gets a hands-on experience with the first large razor clam from Northeast Cove. Thanks go to the Gulf of Maine Institute youth who collected sea life during an extremely low tide in Sept., the night before all the elementary students came to the Freeport Village Warner House to experience marine life on the mudflats. This experience along with several other offerings from Arts ‘n Adventures in the Cove proved very popular and the children from Primary to Grade Six had a fabulous time!

What’s Going on in There?

By Gareth Elderkin



If you regularly drive up and down Digby Neck, you have been watching a transformation of the old building across from Little River Trading. The Elderkin Family’s goal this summer is to complete the fourth side of the building. This is proving to be the most challenging and difficult side. Once the outside



is completed, they can tackle the inside. Their vision for the “*Tourist Trap’s*” future is giving local Artisans a place to show and sell their work. There are a few interested crafts people now waiting to see what the future has in store.

The next time you drive by, stop and take a peek at the progress!

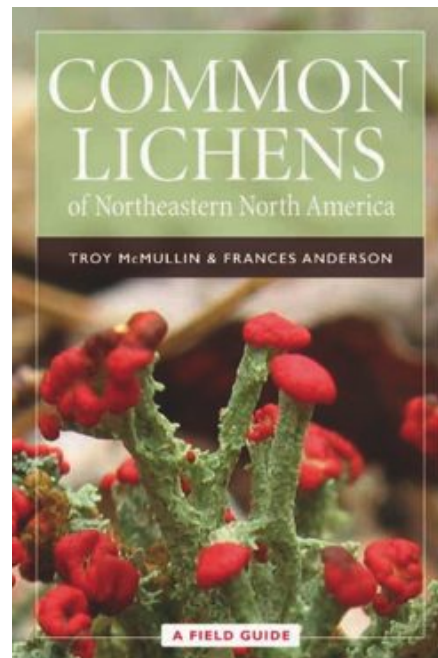
Karla Kelly photos

The Lichen Guide is Here!

At last, a light and easy-to-use field guide to the rich lichen flora of Northeastern North America!

This user-friendly guide was designed for amateur naturalists, nature interpreters, forestry workers, land surveyors, researchers, and the general public. It will fit in a pocket or backpack; requires no previous botanical experience and is written in non-technical language.

The 138 lichens in this guide are seen mostly in the Canadian Atlantic provinces, New England, Québec and eastern Ontario. The guide is formatted so that each page is arranged by the surface each lichen grows upon in the field, its shape or growth form, then by its color. Full colour photographs and black and white drawings for each species also aid in identification.




Use this guide to get tuned into the ancient, fascinating and beautiful world of lichens—you can start in your own backyard!

2014 | spiral | 192 pp. | 138 color photos | 138 b/w illustrations | ISBN 978-0-89327-511-2 | US \$39.00

To place an order please call (718) 817-8721 or fax (718) 817-8842 or email nybgpress@nybg.org

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Remember this?
Good thing we didn't need to schedule any urgent meetings this past winter!

Please share your stories and photos with us!
We want to know how **you** enjoy the Digby Neck and Islands and the Bay of Fundy.
anna-marie.mackenzie-kelly@mail.mcgill.ca

A Quick Look Back at Winter

By Anna-Marie MacKenzie Kelly

While I was shoveling, the very many times, I shoveled, I found my mind wandering, trying to not think about the task at hand, but, I most often ended up back, thinking about all the snow and where I was going to put it. I found myself writing stories and poems...

This one came early in the season:



How to shovel through 40 cm of wind-packed snow in the driveway

- A. Put on snowshoes and assess the situation
- B. Collect 2 days of newspapers from the mailbox (be thankful that the papers arrived, today).
- C. Give the newspapers to the good doctor to keep him occupied, indoors, while you go about your work.
- D. Cut a 40 cm deep row in the 40cm deep snow.
- E. Cut the row into nine 40 cm cubes
- F. Slice through the middle of each cube and carry the 20 cm block to the side of the driveway, carrying away 18 blocks from each row.
- G. Repeat steps D, E and F all the time praying a neighbour with a plough will come by.
- H. Yes, the praying worked; 3/4 down the driveway, the good neighbour arrived!
- I. Thank neighbour and promise him a warm loaf of banana bread.
- J. Next, cut through the 60-90 cm drift in front of the barn, note to self: build a woodshed closer to the house, away from the wind.
- K. Bring in one armload of wood and inform the good doctor that all is clear for him to bring in the day's supply of wood.
- L. Put on snowshoes and walk across the metre high drift to fill the bird feeder.
- M. Return indoors.
- N. Sit in Lazyboy chair and enjoy the warmth of that armload of wood.

Then came the recipe:

White layer cake, gluten free

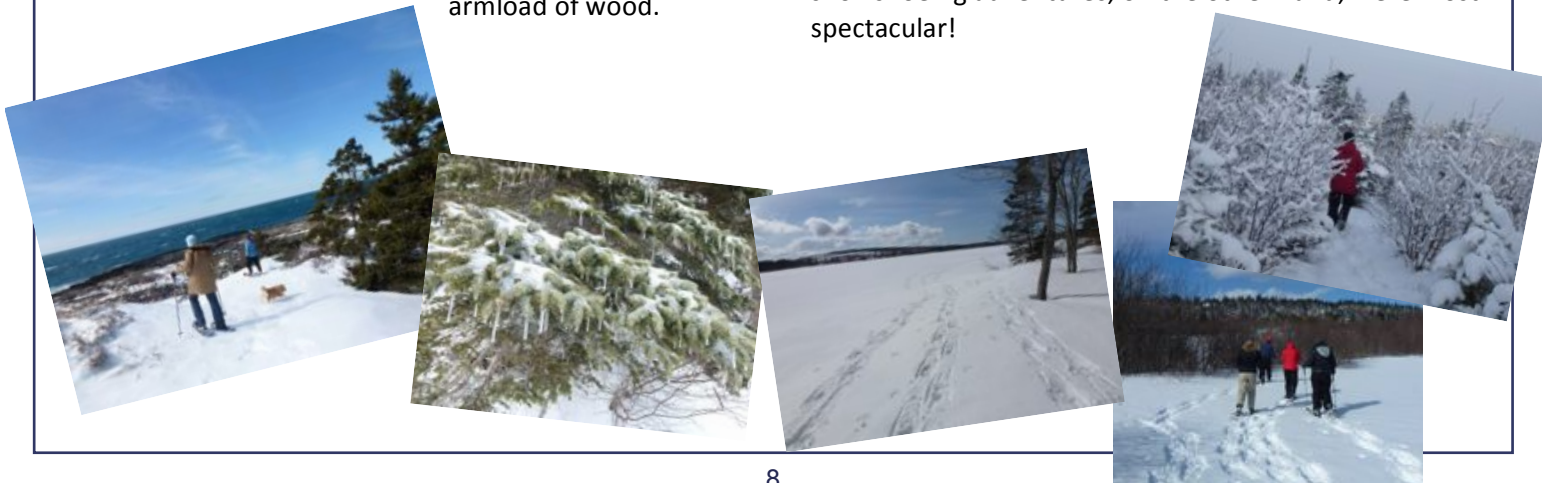
In fact, it is sugar-free and vegan! It also burns calories as you slice and distribute it!

Start with

A 14 cm light and fluffy bottom layer
 For contrast, spread on a 2 cm filling of tapioca beads that pinged against the windows all night
 Top with 14 cm of light and fluffy meringue
 Spread glaze with a knife sharp wind
 Let it settle for a few hours
 Slice into 30 cm cubes and distribute
 Be aware that the layers did not settle evenly and therefore, at times, you might be facing a three and four-layer cake, burning even more calories.

Warning: This cake shimmers in the sunlight; possible causing temporary snow blindness.

As I shoveled through the months, some of the later stories I composed in my head are not fit for print... The snowshoeing adventures, on the other hand, were most spectacular!



Signs of Spring



**Community Great Nova Scotia Pick-Me-Up in Little River
Saturday 16 May 2015
10:00 am-2:00 pm (or so)**

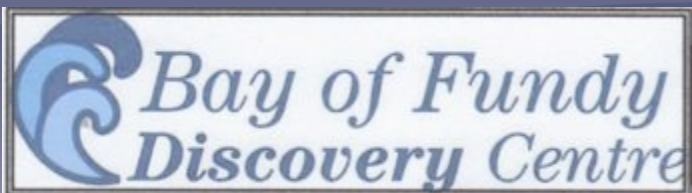
Join the Digby Pathfinders and Rangers in a community garbage clean-up in Little River. This event is registered with Clean Nova Scotia and everyone is welcome to come out. We need drivers with trucks and energetic walkers with boots and gloves. For more information, contact Anna-Marie at 902-834-2370 or anna-marie.mackenzie-kelly@mail.mcgill.ca

Please Share With Us!

We welcome your stories and your photos.

- Do you have a comment or question about something you have read in our newsletter?
- Have you been on an outdoor adventure?
- Do you have some great photos of places and things in our local area?
- Do you have an interesting story to share?
- Is there an event coming up? Let us know.

We are happy to hear and share your comments, stories and photos with our readers.



Our Fundy-Our Future

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