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...to renew your membership for 2018!

Here's what you need to know...

Annual Membership:

Individual	\$10.00
Family	\$25.00
Business	\$30.00
Indiv. Lifetime	\$125.00

The BLBRA is a registered charity. Tax receipts are also issued for donations. You can renew on line or by mailing in your cheque. See contact info on page 3.

Notes from The Chair (Dr. Bruce Hatcher)

"The Bras d'Or Lake Biosphere Reserve is in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaw People." The Bras d'Or Lake Biosphere Reserve is located in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaw People. As descendants of the original humans that inhabited this ecosystem (at least more-or-less as we know it now), today's Mi'kmaq bring a cherished perspective to our work in the Biosphere. It is captured in the word "Netukulimk", which can be simply translated "to avoid not having enough". A very personal appreciation of the true meaning of "sustainable development" is at the heart of UNESCO's (hu)Man and the Biosphere Programme: we all need our own understanding if we are to turn words to actions. It was a significant event for the Biosphere this month when the Board of Directors unanimously endorsed five action items that the Association will follow to foster and strengthen collaboration with, and support for, Indigenous Peoples in Unama'ki. The first sentence of this message is the first action item on that list; we look forward to achieving all the others as we work together to advance our shared objectives for the Bras d'Or Lake Biosphere Reserve. Oh, and it is still not too late to say "Happy New Year 2018" to all of you.

The Local Picture: A Word or Two about Water Supplies

Best Practices Corner (by Lynn Baechler, M.Sc., Hydrogeologist)

Early in my career with the Department of Environment (NSE) I learned and promoted the following advice: "Before you Build, Before you Buy, Before you Subdivide, determine if you can obtain a water supply." These days, NSE still advises that you access a suitable potable water supply **BEFORE** you start into the expensive task of building your home. Their publication "Before you Construct a Water Well" can be found at:

www.gov.ns.ca/nse/water/docs/ConstructWell.pdf.

The watershed of the Bras d'Or Lake is underlain by a variety of rock types. Some geologic units (rock types) offer a good potential for water supplies, others not. It seems most folks want to live adjacent to the Lake. These lowland areas are typically underlain by shales, siltstones and sandstones interbedded with limestones, gypsum and some salts. These rocks may, but not always, yield low volumes of poor quality water. Sometimes, salt water intrusion becomes an issue if a well is in close proximity to the shore. As the land raises away from the Lake more resistant rocks (igneous and metamorphic rocks and some conglomerates) are the norm. Depending on

Canadian Biosphere Reserves Network

Making travel plans for the summer? Visiting another province? Consider seeing one of the other 17 UNESCO Biosphere Reserves found throughout the country. Check them out by clicking on the link [here](#) to view their respective web sites. Have a look at this Biosphere on the east coast of Vancouver Island, [Arrowsmith Biosphere Reserve](#).

Photos from our on-going Forest Monitoring project.

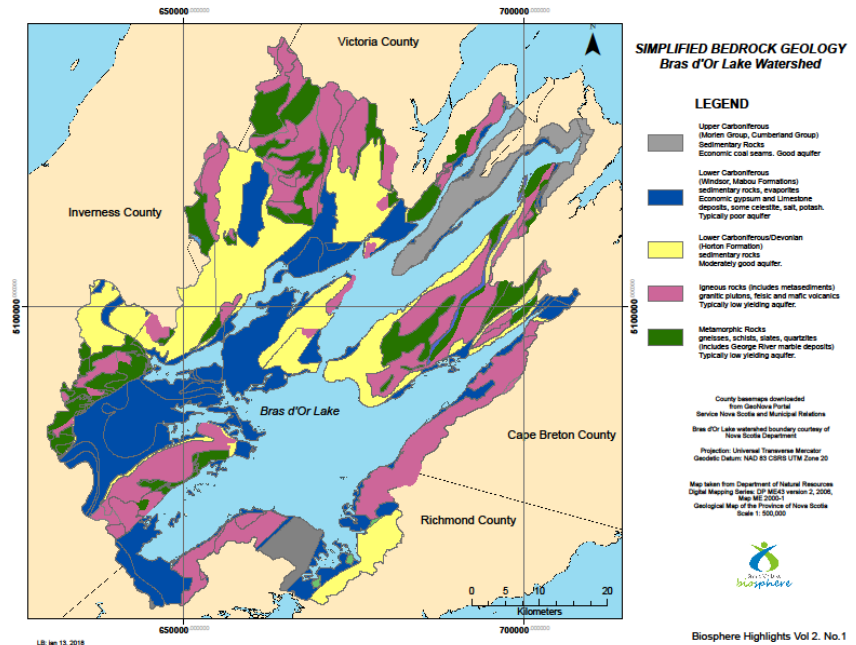


Checking for living creatures in and around the tree stump.



Young students counting living and dead trees in a bark beetle infested forest.

the frequency of fractures, a well drilled in these more resistant rocks may yield low to moderate volumes of potable water.



Do not despair, if you love your property and cannot obtain a drilled well near the site for your house; advice from a professional might offer you some hope by suggesting an alternate drilling site on or off your property, the location for a possible dug well (shallow surface well), or they may assist you with incorporating a 'rainwater harvesting system' (cistern) into your house design. If you are successful in obtaining water but it is poor quality; treatment options are possible. Either of these scenarios will add to the cost of your domestic water system. It is much better to know these costs 'up front' before you start to build your dream home.

Forest Monitoring Update

(by Dave Harris)

Our Forest Monitoring project has started to pilot some activities in local schools (Middle River Elementary). A small woodlot adjoining the school provided the perfect location to discuss forests and get the students into the woods. In early June, 2017, we identified trees, shrubs, and animals found in and around the woodlot. The number of trees and the species living in this forested area were reported as well as the number of dead trees both standing and down.

The main focus was to give elementary students an insight into inventorying a forest stand and the concept that a tree, like any living thing, has a lifespan. We looked for living creatures on both live and dead trees to help teach them that these trees are part of animal habitat no matter the tree's state of existence. We used a student activity from the Project Wild Activity Guide called the Thicket Game. This helped children understand camouflage and the importance of prey species to remain silent and still. The last activity was placing rough boards around the woodlot, setting up a salamander habitat so an inventory could to be undertaken in the future. Time was spent in the classroom looking at and identifying collections. On September 28, we returned to Middle River Elementary to review forest species and look for living things found within the woodlot in the fall. We checked on our



Mersey Tobeatic researchers teaching volunteers how to take a tree core sample.



Coady Students touring the Baechler's Woodlot

Videos

Cape Breton is open for winter! If you can't beat it or leave it then this very short videos may get you out and enjoying winter in the Biosphere. Whether snowshoeing, cross country skiing or snowmobiling, experience your Biosphere and our Island in all seasons.

<https://www.facebook.com/TourismCB/videos/1519336011454861/>

Just in case you haven't heard... Super Blue Blood Moon tonight, Jan. 31.

<https://www.youtube.com/watch?v=IrydklNpcFI>

salamander boards recording all things found under them, played the Thicket Game again and reviewed data and collections in the classroom.

An additional activity occurred this past June when the Forest Monitoring volunteers established a connection with the Mersey Tobeatic Research Institute to participate in adaptation practices designed to familiarize some of the volunteers with forestry tools and methods for later application in our forestry monitoring program.

We have had a preliminary meeting with Potlotek First Nations High School to develop a High School program in the forest as well. Weather and time constraints this past fall made it impossible to have a field day in the fall, but we have it planned and will reschedule in the spring.

In early November, the Forestry Committee of the Bras d'Or Lake Biosphere Reserve Association played host to 35 International Students from the Coady Institute of St. Francis Xavier University. Students were given a tour of the Baechler woodlot in Johnstown highlighting restoration work the Baechler's are doing on their woodlot. Old forests and their importance were highlighted with lots of questions about the Biosphere itself.

Meet the Residents: Snowshoe Hare

(By Annamarie Hatcher)



If Alice sees a white rabbit (Mi'kmaq: Apli'kmuk) in the forests of the Bras d'Or Lake Biosphere during this time of year it is most likely a snowshoe hare (*Lepus americanus*) in its' winter coat and not a rabbit at all. There are no wild rabbits native to the Biosphere. Are you confused? Well, rabbits and hares are in the same family but they are as closely related to each other as goats are related to sheep. Hares are

larger and more social than rabbits. Hares have much longer pregnancies and their babies are more developed than are the newborn rabbits. Hares live completely above-ground whereas most rabbits live some of the time in underground burrows. Snowshoe hares are named for their large hairy feet which allow them to navigate on top of the winter snowpack. These furry little herbivores dress all in white during the snowy months except for black eyelids and ear tips. During the summer they dress in a stylish brown fur coat and these colour choices are ideal for 'blending in' to the local surroundings to avoid being eaten by the local predators.

During the warmer months in the Bras d'Or Lake Biosphere there is a buffet of grasses, small plants and tree seedlings for snowshoe hares to dine upon. In winter the pickings are slim so the little herbivores concentrate on tree and shrub bark, twigs and the tender parts of conifers such as the balsam fir.

BLBRA Meetings

OUR NEXT MEETING IS AT...

Location	Date
Potlotek	Thurs., Feb. 15
Whycocomagh	Thurs., Apr. 12
St. Peter's	Thurs., May 10
Iona (AGM)	Thurs., Jun. 21

NOTE:

Meeting times are 1:30 -4:30 pm.
No meetings are scheduled for
March or July. **All are welcome.**



Be our
Valentine
in
February

Contact Us:

website - <http://www.blbra.ca>
Or email us at: contact@blbra.ca

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comments or suggestions. Let
us know if you do not wish to
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your comments or suggestions
to: m.eileencrosby@gmail.com**



Because these foods are not as nutritious as their summer choices, snowshoe hares have developed a recycling mechanism to extract as much nutrition as they can. The foods go through their gut at least twice which means that they ingest their own excrement. This is not a strategy that is recommended for those higher on the food chain! If a little more protein is available in the form of a dead mouse or bird, snowshoe hares have been known to supplement their diet as a temporary scavenger!

Snowshoe hares occur in forests all across Canada and the more northern parts of the United States. They are major prey for some Biosphere predators such as coyotes, lynx, bobcat, fox, Great Horned owls, the iconic bald eagle and human hunters (meat from snowshoe hare in Mi'kmaq: apli'kmujuey). They probably formed an important source of protein for some early residents and settlers in the Biosphere.

If you want to meet a snowshoe hare in the Biosphere at this time of year it would be wise to hike near a low stand of conifers at dawn, dusk or on a dark, dingy day. That is when they will be most active. You have to have a keen eye because they will freeze, motionless, when they catch sight of you. If there is snow on the ground, their warm winter attire will allow them to blend in and you may not see them at all. If that camouflage strategy doesn't seem to be working, they will take off and run at speeds up to 45 km an hour!

Photo: By D. Gordon E. Robertson - Own work, CC BY-SA 3.0,
<https://commons.wikimedia.org/w/index.php?curid=24071225>

Information gleaned from:

http://www.biokids.umich.edu/critters/Lepus_americanus/

Guided Winter snowshoe Hikes

From snowshoe hares to snowshoeing humans, once again this year, Hike Nova Scotia is sponsoring guided winter hikes throughout the province during January, February and March. Twenty-two such guided snowshoe hikes are scheduled for Cape Breton with a number occurring in the Biosphere at Ski Ben Eoin, Uisge Ban Falls, Middle River, Big Baddeck and Iona. For details and a complete listing of all guided snowshoe hikes, click on [this link](#).

Featured Trail

There are a number of trail throughout the Biosphere; some are well known and well used while others are less so. The Trail Committee of the BLBRA will feature a trail map each newsletter which will appear on the last page. This month's featured trail is the **East Bay Hills Trail** which is shown on the next page. Just 3 km. long, this is a great trail for young families or for those who just want a short outing in the woods. For a longer hike, reverse and walk the loop in the opposite direction. Also a great trail to snowshoe especially if you're just getting started. The trail is maintained by the East Bay Area Community Council. Access to the parking area is usually plowed in winter.

East Bay Hills Trail

Hiking Trail



You are here

Trail Notes:

Length: from parking circle -
3.1 km (return)
Elevation at Trail Head: 33 m
Top Elevation: 70 m
Tolerant hardwood and mixed
wood forest (ranging from early
succession to groves of old Eastern
Hemlock)

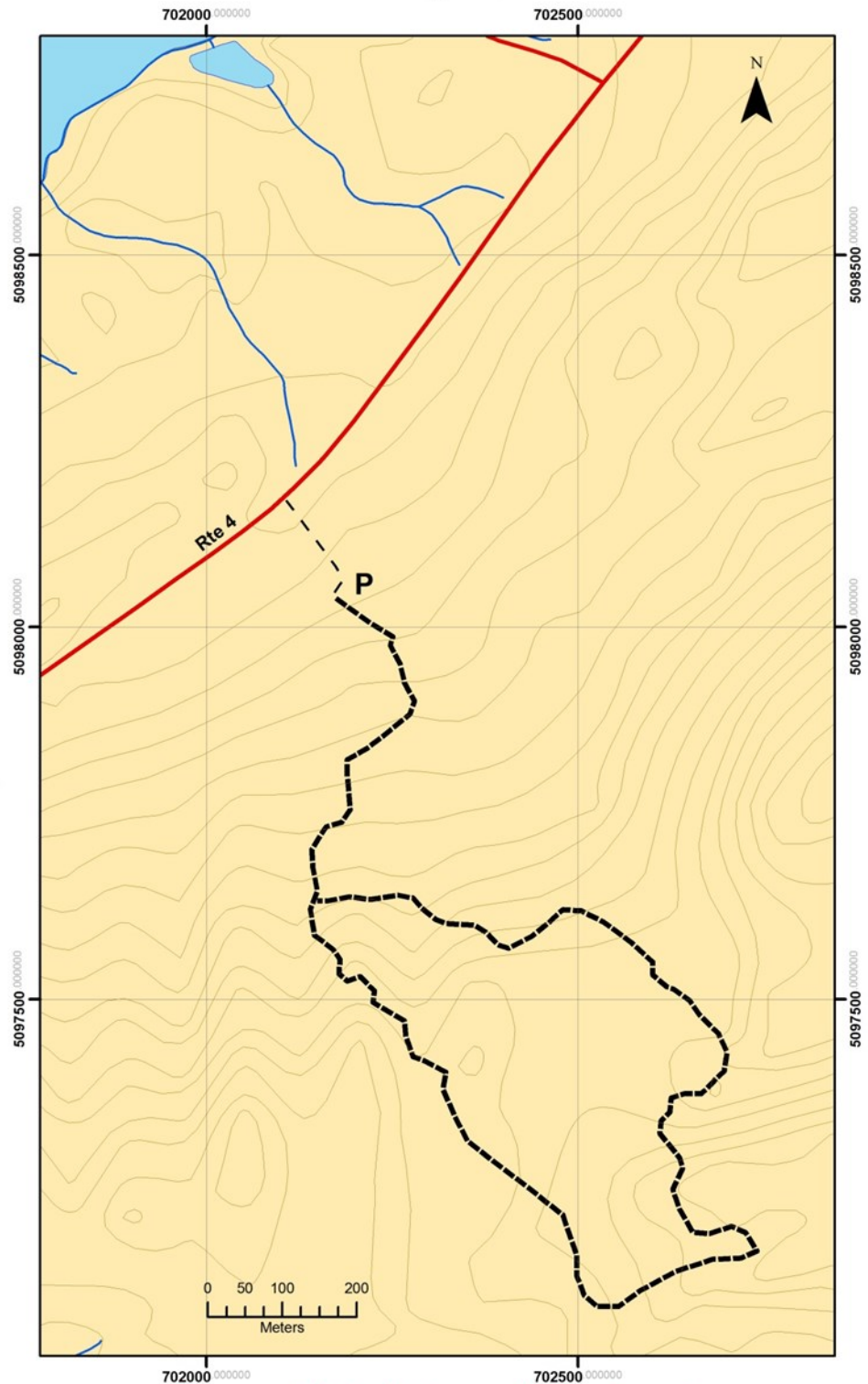
Well maintained forest walk
Learning opportunities (signage)
Parking

No water or washrooms

EFFORT: Easy



www.blbra.ca



Please carry out what you bring in, respect land owner's property
and know you are on the trail at your own risk. Have fun!

'Walking Around the Bras d'Or'
A project of the Bras d'Or Lake Biosphere Reserve Association

Basemaps downloaded from
GeoNova Portal
Service Nova Scotia and Municipal Relations
Projection: Universal Transverse Mercator
Geodetic Datum: NAD 83 / CRS UTM Zone 20
Contours (5 m)
LB: September 23, 2016
rev. January 24, 2018