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BIOSPHERE HIGHLIGHTS Quarterly

SPRING EQUINOX EDITION
MARCH 20 2021



United Nations
Educational, Scientific and
Cultural Organization



Bras d'Or Lake
Biosphere Reserve

Msit No'kmaq - People & Nature; Better Together

Our Biosphere is located in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq People. It is a place where the people who live and work within its boundary try to attain a balanced relationship with the natural world, contributing to the needs of society as a whole by showing a way to a more sustainable future.

ASTROLOGICALLY SPEAKING

From EarthSky.org



An animation of Earth as it orbits, with points marking both equinoxes and solstices along with relevant information. [James O'Donoghue](#)

Spring Equinox, March 20, 2021

The March equinox – also called the *vernal equinox* – marks the beginning of the spring season in the Northern Hemisphere and the autumn season in the Southern Hemisphere. The March 2021 equinox will arrive on March 20 at 09:37 [UTC](#) or 6:37 a.m. Atlantic Daylight Time (ADT).

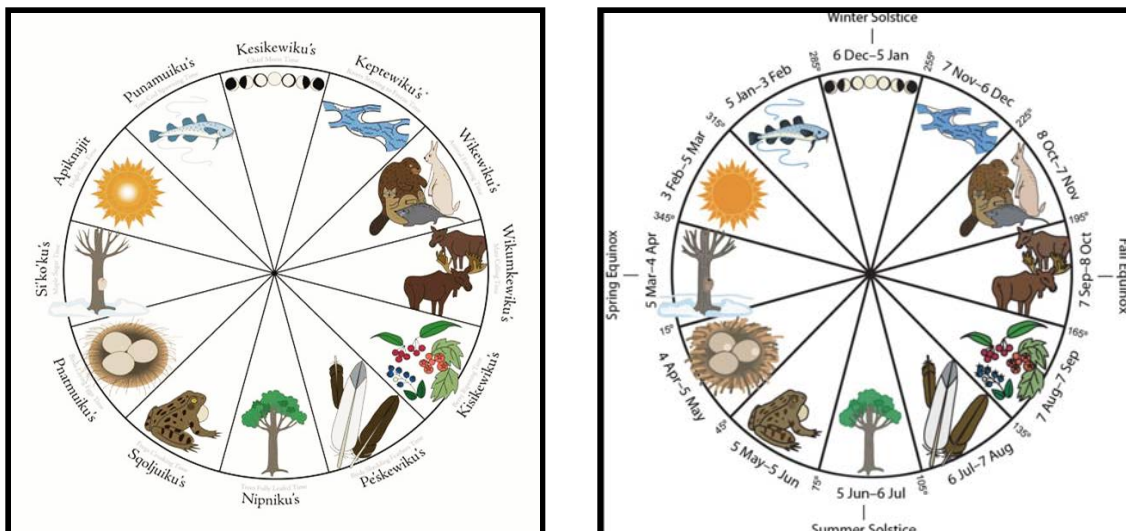
On the dates of the equinox, the sun rises due east and sets due west as it crosses the celestial equator. If you live in the Northern Hemisphere, start watching the sun this month, and watch every night as the sun sets just a bit farther north on the horizon each evening until the summer solstice.

In the Northern Hemisphere, the March equinox will bring earlier sunrises, later sunsets, softer winds, sprouting plants. Meanwhile, you'll find the opposite season – later sunrises, earlier sunsets, chillier winds, dry and falling leaves – south of the equator.

NATURES CALENDAR

IN SEARCH OF THE 13th MI'KMAQ MOON'S

By David M.F. Chapman and Cathy Jean LeBlanc



Credits: Mi'kmaq Elders in conjunction with CBU Canada
Research Chair in Integrative Science tea.

Calendars, Ancient and Modern

Whether we hang it on the wall by the phone, or consult the “app” in our smart phones, each of us uses a calendar of some sort to organize our lives. Does the weekend start tomorrow? When is Aunt Betty’s birthday? How many weeks until vacation? Nowadays, people all over the world use the civil calendar, which is the same as the Gregorian calendar, first authorized for use in Roman Catholic countries by Pope Gregory XIII in 1582, but later officially adopted by most other countries, and now considered an international standard. The establishment of the Gregorian calendar, with its unequal months, leap years, and rules for determining the date of Easter, makes a fascinating story, but here we share another calendar story: the timekeeping methods of North American indigenous peoples before the arrival of the Europeans— specifically the Mi'kmaq of Atlantic Canada (the noun “Mi'kmaq” is pronounced “meeg-ga-mak”).

Use the link below to see the complete article in The Journal of the Royal Astronomical Society of Canada




March 5 to April 4 (Also Maple Sugar Time - Si'ko'ku's)



April 4 to May 5



May 5 to June 5

 [Mi'kmaq Moons](#)

A Gaelic Weather Rhyme

Described by Ed MacDonell - Highland Village Museum

Suas an t-Earrach! Up with Spring!

The Gaels are a people traditionally tied to the land and the seasons. The shift from winter to spring offers us an opportunity to reflect upon sayings which mark the season in anticipation of the longer days and warmth to come.

The following is a popular weather rhyme I learned from the late Dr. Ken Nilsen, who recorded and transcribed it from Alec MacLeod at one of St. F.X.'s Gaelic Days. Other versions of this rhyme have been recorded from tradition bearers around the Bras d'Or. Let's take a look at this rhyme from Mr. MacLeod:

Gaelic

Translation

Naoi Latha Gearrain
Trì Latha Sguabaig
Ao' Latha Biodaig
Suas an t-Earrach!

Nine days of Gearran
Three days of Sguabag
One day of Biodag
Up with Spring!

The four weeks of Faoilleach traditionally began midway through January and were proverbial for their stormy and variable weather. Next to come was the Gearran, when the wind would be, as one contributor to the historic Cape Breton newspaper Fear na Céilidh put it, “cho geur ‘s gum biodh i an ìmpis an t-aodann a ghearradh” (so sharp that it could almost cut the face). The contributor continues by describing the days of Sguabag, when the snow would be swept around by the wind. Mr. MacLeod’s version of the rhyme follows with a day of Biodag, which was described to me as a day of severe weather. Biodag is a name for “dagger” in Gaelic, and so one might wonder if this day is a take on the days of Gopag, which appear in other versions of the rhyme and are described, similarly to the days of Gearran, as having sharp, piercing winds. Once this tempestuous weather passes, we can all take relief that spring will be on its way and proclaim “Suas an t-Earrach!” (Up with Spring!).

Bibliography:

Fear na Céilidh. 1930. Am Faoilteach. January

MESONET OBSERVATIONS

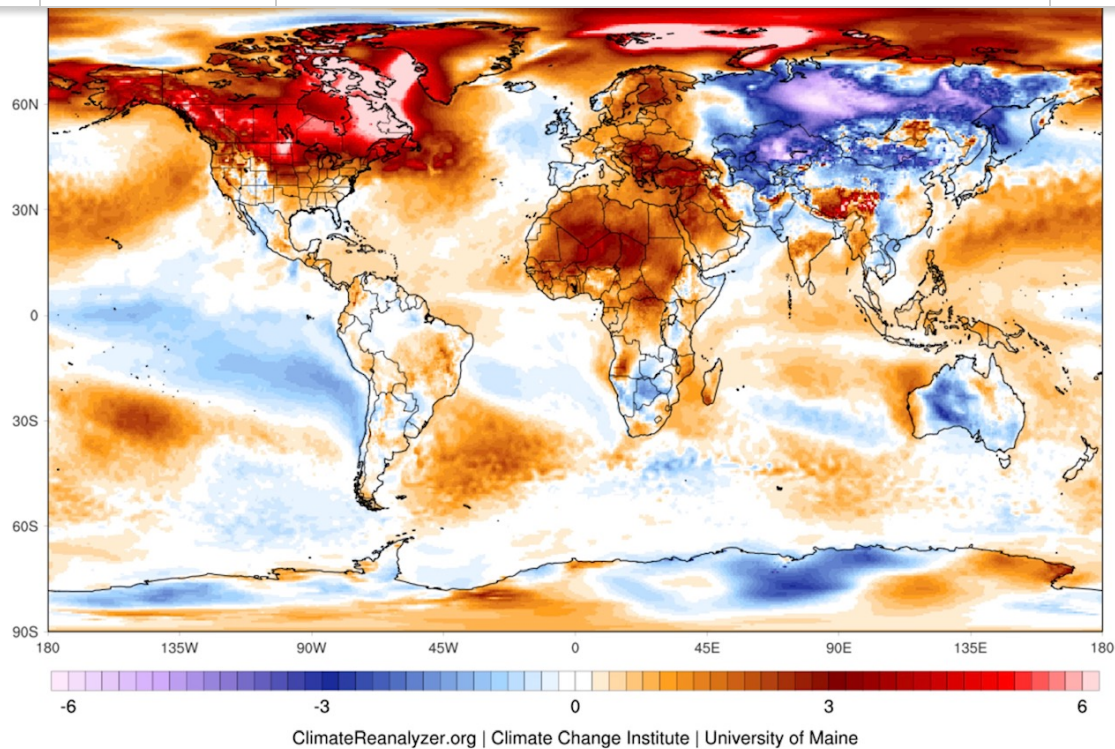
By Jonathan Buffett

Winter 2021 was exceptionally warm in Cape Breton, continuing a trend that’s persisted since mid-2020. We’ve experienced long periods of mild, calm weather at a time of year that often brings the harshest conditions. Walking through the woods in late January on an un-frozen forest floor with no snow on the ground is something you don’t often experience here. In ways, this has



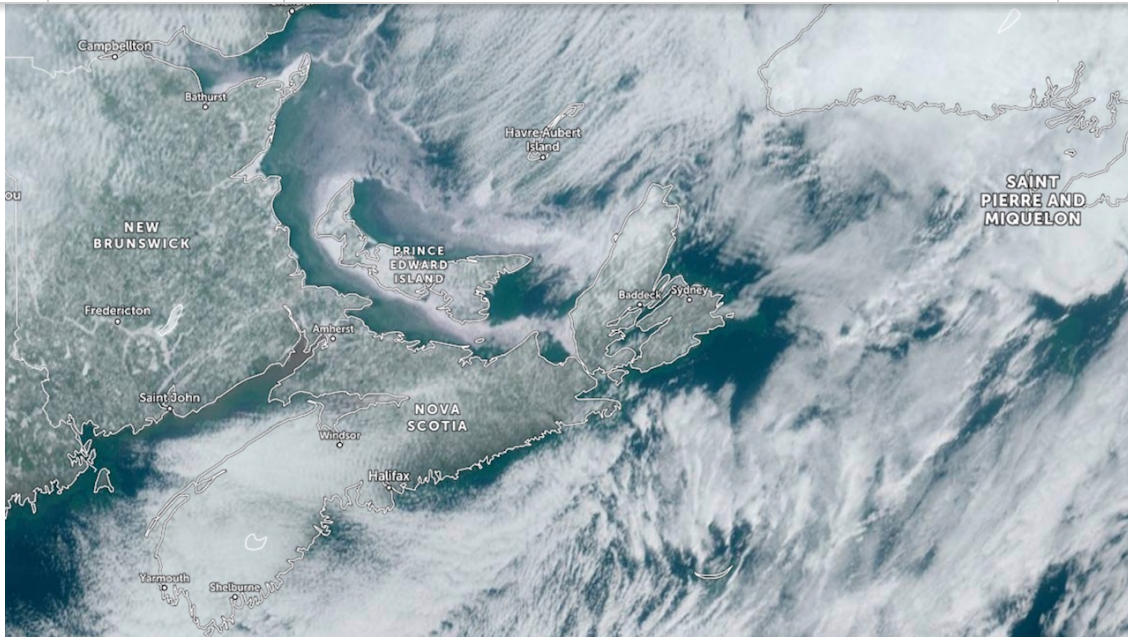
Woods photo in Sydney Mines on Jan 27th. Jonathan Buffett.

Despite lengthy mild spells with low precipitation, snowfall was not significantly impacted at Sydney Airport, being just 12% below average, thanks largely to two major storms (January 2nd and February 8th), each dumping over 30cm of snow. So, how warm was it? Based on data from Sydney Airport, this was the 2nd warmest winter on record (December to February) since records began in 1870. December 1st to February 28th defines meteorological winter, with March 1st marking the start of meteorological spring, and so on. These 3 month periods are used to officially calculate seasonal averages and normals around the world. Sydney Airport recorded a mean winter temperature of -0.6°C , which was 3.7°C above the 1981-2010 normal. It was second only to winter 1957-58 which was marginally warmer at -0.5°C . Previously, winter 1950-51 was the 2nd warmest with a mean temperature of -0.7°C .



December 2020 - January 2021 temperature anomaly - University of Maine

One of the most striking effects of such a mild winter was a lack of ice in the Gulf of St. Lawrence and Labrador sea. Persistent easterlies in December and January flooded Eastern Canada with mild, oceanic air. This, along with much warmer than normal sea surface temperatures in the northwest Atlantic helped to prevent ice formation. Typically, cold Arctic air advects from the northwest out of Quebec from December to March, causing ice to form on the western side of the gulf. It gradually expands east to the western shores of Cape Breton and exits the Cabot Strait in early spring. The arrival of ice brings a noticeable increase in sunny, drier weather and often leads to the cold, clear and calm nights. Sea ice acts much the same way as land, preventing moisture in the Gulf of St. Lawrence from forming clouds and snow squalls over Cape Breton. This is evident in the satellite image below, taken on March 7th. Here we see clear sky over ice covered areas of the gulf, while streamers of cloud form immediately over the nearby open water as winds blow from the southwest.



Satellite image from NOAA

A mixture of ice and open water at sunset near Whale Cove, Inverness County. The ice, helping to keep skies clear under a ridge of high pressure



Sunset photo looking west over the Gulf of St. Lawrence. Taken by Jonathan Buffett.

This winter may offer a glimpse into the future as we face a changing climate. Warmer than normal ocean temperatures along with less sea ice could cause milder winters and changes in snowfall patterns. However, that doesn't mean everyone will experience a decrease in snow. In fact, an ice free gulf could extend the snow squall season through the duration of the winter, leading to higher snowfall totals in the highlands and western Cape Breton. While none of this is set in stone yet, we'll likely have a clearer idea of what to expect based on trends in the next decade.

[Mesonet Interactive Map](#)[CBWeatherMesonet](#)

OUR CULTURE, HERITAGE & ECONOMY

By Yvette Rogers



One of nine Cape Breton road trips by Celtic Colours International Festival



Celtic Colours International Festival

INSIGHTS ON TOURISM

By Pierre LaRochelle



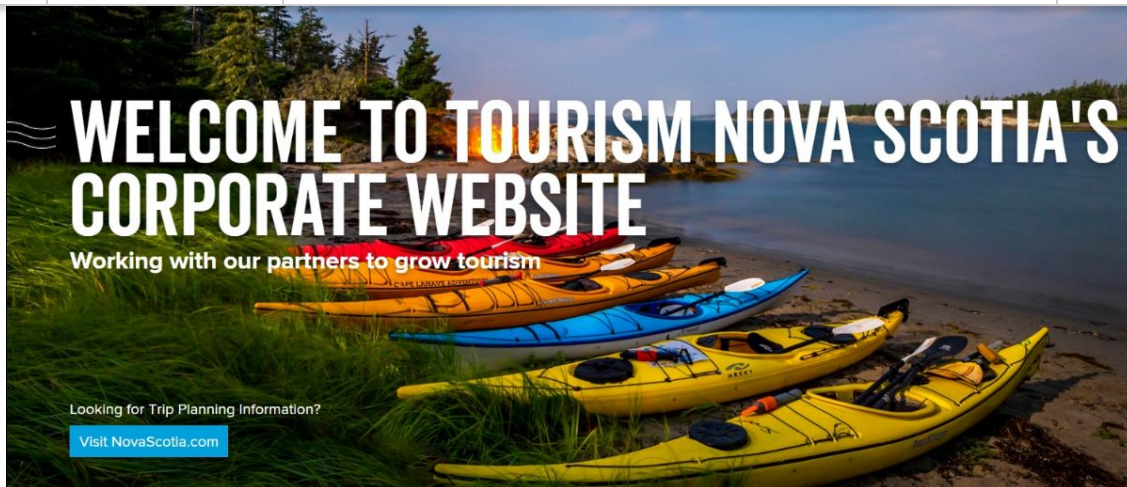
Presentation of 2021 Plan – Register Now

Destination Cape Breton will be presenting its 2021 Plan via a Zoom webinar on **Monday, March 22 at 2:00 PM**. The plan will outline scenarios for the 2021 season, and provide operators with information on opportunities in product innovation and marketing. Click the button below to register.

[REGISTER NOW](#)

Destination Cape Breton Association (DCBA) is the official Destination Marketing Organization (DMO) for Cape Breton Island. An incorporated non-profit society, DCBA's mandate is to grow Cape Breton's tourism industry through off-Island marketing and on-Island tourism product innovation. (DCBA 2021)

[Destination Cape Breton Industry Page](#)



Tourism Nova Scotia (TNS) is a private sector-led provincial Crown corporation with a mandate to grow Nova Scotia's tourism industry and maximize the value of tourism to Nova Scotia's economy through marketing, experience and sector development, and visitor servicing.

As the destination marketing organization for Nova Scotia, we are responsible for developing a tourism strategy and leading tourism marketing and development efforts for the province.(TNS, 2021)



Tourism Nova Scotia



Founded in 1930 to encourage the development of tourism in Canada, TIAC serves today as the national private-sector advocate for this \$102 billion sector. Based in Ottawa, TIAC takes action on behalf of Canadian tourism businesses and promotes positive measures that help the industry grow and prosper. (TIAC 2021)



Tourism Industry Association of Canada

Towards Growth and Prosperity

By Carly Appleton, The Cape Breton Partnership

The Bras d'Or Lake Biosphere means more to Cape Breton Island than a unique ecosystem and a place to call home –it signifies a beacon of economic outlook for the future of the Island. The Cape Breton Partnership is helping to pave the path



When the Cape Breton Partnership was first established in 2004, its efforts were focused on addressing the needs of the local business community across Cape Breton – Unamak’i and to bring long-term sustainability and growth to the economy of the Island. Fast-forward 17 years, and the Partnership, Cape Breton-Unama’ki’s private sector-led economic development organization, serves as the Island’s driving force of economic development and prosperity.

So, what does a private sector-led economic development organization have in common with a UNESCO Designated Biosphere Reserve? “A lot more than one might think,” says Carla Arsenault, President & CEO of the Cape Breton Partnership “The Cape Breton Partnership administers [two Regional Enterprise Networks](#) (RENs), the Cape Breton Regional Municipality Regional Enterprise Network (CBRM REN), and the Cape Breton Regional Enterprise Network (CBREN), which encompasses the counties of Victoria, Richmond, Inverness, the Town of Port Hawkesbury and the First Nations communities of Membertou, Eskasoni, We’koqma’q and Wagmatcook. Together, the Partnership supports the Biosphere community by assisting in the

“Our organization is working alongside our partners in these communities to make a meaningful impact, through supporting their growth initiatives, in addition to providing supports and access to programs we oversee that can help the local economy in the region thrive,” said Arsenault.

Cape Breton Mountain Bike Tourism Action Plan

Mountain Biking is growing into a significant tourism industry around the world. Communities embracing mountain biking are seeing economic and community revival, quality of health on the rise, and the influx of new faces bringing tourism dollars and a desire for quality experiences.



Shoreline Consultant Group - Cape Breton Mountain Bike Tourism Action Plan

The terrain and current hiking trails surrounding the Bras d'Or Lake Biosphere have been recognized as an opportunity to create jobs, launch businesses, and promote tourism to the region. With this in mind, the Cape Breton Partnership, Municipality of the County of Victoria, and Destination Cape Breton engaged Shoreline Consulting Group in the development of an [action plan](#)

and Cape Breton Island as the Mountain Biking Capital of North America.

“This strategy and the future of the Mountain Biking industry will have a large economic impact on communities in the Biosphere and we will definitely see an influx of mountain bike enthusiasts, and mountain biking businesses in Victoria County. Since the launch of this work, we have fielded several inquiries from around the world about starting businesses related to mountain biking here in Cape Breton – Unamak’i,” says Patrick Austin, Economic Development Officer for Victoria County with the Cape Breton Partnership.

“This work is important and will change the economic landscape of all communities located near the Bras d’Or Lake Biosphere.”



Cape Breton Partnership

Editors Note: On March 12, 2021 the Government of Canada announced the first federal fund for cycling paths and trails across the country. "The Honourable Catherine McKenna, Minister of Infrastructure and Communities, and Parliamentary Secretary Andy Fillmore announced \$400 million over five years to help build new and expanded networks of pathways, bike lanes, trails and pedestrian bridges. This is the first federal fund dedicated to building active transportation through Canada – powered by people – and part of the Government of Canada’s plan to create one million jobs, fight climate change, and build a more sustainable and resilient economy." (Infrastructure Canada 2021)

Check it out!

Mobilizing values: using perceptions of barachois ponds in Nova Scotia to advance informed management

by Lydia Ross and Lucia Fanning

Abstract

"Meaningful engagement is increasingly used as a management tool for understanding the multitude of complex values and potential conflicts around marine conservation and the production of conservation strategies deemed acceptable by local communities. Barachois ponds, akin to coastal lagoons, are recognized coastal wetlands in Nova Scotia, Canada, given their distinct ecosystem services, including provisioning, regulating, and cultural services. This study examines the current discourses around the management of barachois ponds and how an increased understanding of these perceptions held by stakeholders and managers might be used to better inform integrated management of these wetland ecosystems."



Watershed mapping courtesy of Lynn and Fred Baechler on ESRI Base Map

"A mixed-methods research design using Q methodology was employed to acquire data on social perceptions surrounding the management of barachois ponds fringing the Bras d'Or Lake in Cape Breton, Nova Scotia, Canada. Four dominant perspectives were identified: the leave-them-be conservationists, the sustainable developers, the management reformists, and the science-based conservationists. Six key issue themes emerged based on an in-depth examination of these different perspectives and Q sort data. This study found that an increased awareness of the ecological, social, and cultural values attributed to barachois ponds by key stakeholders could play a critical role in better informing wetland management decision-making in Nova Scotia and elsewhere." (FACETS)



An eagle sits atop a nesting perch overlooking MacDougall Pond in Cape Breton.

Follow the link below to read the entire article.



FACETS - Canada's Open Access Science Journal - Article Link

International Year of Caves and Karst

by Fred Baechler

The year 2021 has been declared the Man and the Biosphere International year of Caves and Karst. Karst features form as groundwater moves through rocks that are easily dissolved such as gypsum, limestone, marble, and salt. As the solution continues it creates a wide variety of underground caves; some of which get so large they collapse and create sinkholes at the surface.

Interestingly, we have a wide variety of these features over Cape Breton. Some examples are below



Gypsum sinkholes.

Washabuck



Disappearing streams in limestone.

Glen Morrison



**Springs coming to surface from
karst developed in marble.**

Creignish Hills



**Caves/springs exposed in the
core of a salt diapir.**

Mabou Caves

As part of our monitoring of fresh water resources of the Island we are “keeping tabs” on 13 different karst features.

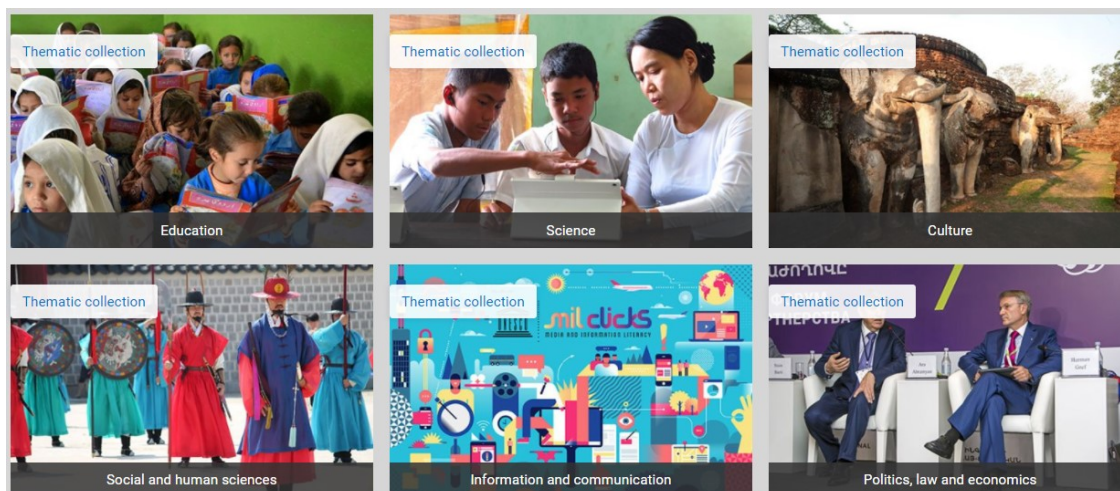
If you want to learn more, here is a link to a series of videos related to the MaB International Year of Caves and Karst: <http://iyck2021.org/index.php/event-results/>

And be sure to [Google "caves and karsts in Cape Breton"](#) for more local sites.

UNESCO INSIGHTS

UNESCO's UNESDOC Digital Library

If you have a bit of time on your hands you may want to check out UNESCO's online library. And this is a two way street. The BLBRA is always looking at contributing articles to our UNESCO partners. Please let us know if you have some original publications to be shared.



"The UNESCO Digital Library is the repository of UNESCO's institutional memory and a source of high-quality information on UNESCO activities (in education, natural sciences, social and human sciences, culture, and communication and information), with more than 350,000 documents dating back to 1945. It includes the collections of the UNESCO Library and several documentation centres in UNESCO's Field Offices and Institutes, as well as the UNESCO Archives. The essential purpose of the UNESCO Digital Library is to share knowledge and to transmit it to future generations" (UNESCO UNESDOC Digital Library).



ASSOCIATION NOTES

Notes from the Chair

Eileen Crosby

Happy Anniversary and wishes for many more!

June 29th, 2021 will be the 10th anniversary of UNESCO's Man and the Biosphere Programme awarding the Bras d'Or Lake Biosphere its internationally recognized designation. We are joined by 700 other such designated places from 124 countries around the world of which 18 are in Canada. The process of becoming a UNESCO biosphere was not an easy task for the dedicated individuals who worked diligently for five years to produce a [Nomination Document](#) that secured this designation back in 2011.



United Nations
Educational, Scientific and
Cultural Organization



Man and
the Biosphere
Programme

MAN AND THE BIOSPHERE PROGRAMME

*By decision of the
International Co-ordinating Council
of the Programme on Man and the Biosphere,*

*Bras d'Or Lake
Canada*

*has been designated for inclusion
in the World Network of Biosphere Reserves.*

*The world's major ecosystem types and landscapes
are represented in this Network, which is devoted to conserving
biological diversity, promoting research and monitoring,
as well as seeking to provide models of sustainable
development in the service of humankind.*

*Participation in the World Network facilitates cooperation
and exchanges at the regional and international levels.*

DATE OF INSCRIPTION

29 June 2011

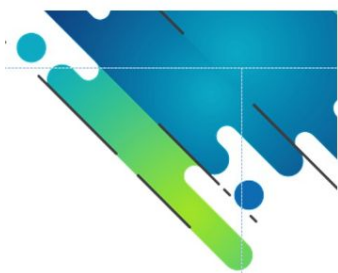
Irène Broons

DIRECTOR-GENERAL
OF UNESCO

Ten years on, another dedicated group of volunteers have recently completed a 43 page mandatory questionnaire resulting

[process](#) must be completed by each biosphere in the world in order to retain its status.

The completed self-reflection document, which was submitted to the Canadian Commission for UNESCO (CCUNESCO) in Ottawa on February 5th, will undergo a comprehensive review over the next several months. CCUNESCO will then provide us with a report which we take under advisement. The BLBRA Board will mesh CCUNESCO's comments and suggestions with our initial self-reflection document. Finally, CCUNESCO will send this updated self-reflection document to UNESCO headquarters in Paris by September 30. And then we wait. Our now enhanced self-reflection document is then scrutinized by an international panel of experts who will determine if the Bras d'Or Lake Biosphere's designation continues for another 10 years. The decision will arrive from Paris in August of 2022. We remain optimistic.



Do you have concerns for the Bras d'Or Lake and its watershed?

Consider Joining our Board

- We meet six times a year plus the AGM.
- Meetings are held in different locations around the Lake, sometimes virtually.
- The Board term is for 3 year.
- We are an operating Board so members are expected to get involved with committee work. There is no staff person. We are all volunteers!
- Committees for your consideration – Forest Watch, Bras d'Or Watch, Trail, Communication, Citizen Science, Membership, Museum display.

public service is core to the betterment of our society.

If so moved, please send us an email by pressing the button below.

[I am interested in learning more!](#)

Job Opportunity

Event Coordinator Contract Position

April 15th to October 15th, 2021
for new initiative

Explore the Bras d'Or Wjinene'n Pitu'poq



[Download the Job Description](#)



Staycationers and Visitors alike, stay tuned for more information in the June issue of Biosphere Highlights. A bundle of events that takes place on or near the Bras d'Or are being planned for the last week of July and the first week in August - Hiking, biking, swimming, sailing, paddling, kayaking and so much more.

Board of Directors Meetings



Thursday, March 25, 2021

1:30 - 3:30 pm

St. Joe's Hall,
Little Bras D'Or, NS

Thursday, May 13, 2021

1:30 - 3:30 pm

TBD
Iona, NS



United Nations
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Cultural Organization



Bras d'Or Lake
Biosphere Reserve
Association

Bras d'Or Lake Biosphere Reserve Association

Please join us Thursday, June 17, 2021

Annual General Meeting

7:00 – 8:30 pm

All Welcome

Held under NS COVID-19 Guidelines

www.BLBRA.ca

Alexander Graham Bell Historic Site Theatre
Baddeck, NS

We Welcome your Participation

PLEASE HELP US CONNECT PEOPLE & NATURE

You can help enrich the Bras d'Or Lake and it's watershed through sustainable development, conservation and climate change adaptation. With the spirit of community and the power of a global presence we can keep the Lake golden.

We are all in this together!

Will you Join, Support or Volunteer?

 [Please tell me more!](#)



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UNESCO

KEEP CONNECTED

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