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The Bras d'Or Lake Biosphere is located in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq.



Vernal or spring equinox 2019 is on March 20 at 6:58 pm



Photos: B. Hatcher, CBU

From Equinox to Solstice in the Bras d'Or Lake Biosphere

Biosphere Highlights will now be issued four times a year reflecting the major points in Earth's journey around the sun starting with the vernal equinox (March) followed by the summer solstice (June), autumnal equinox (September) and finally the winter solstice (December). We hope you enjoy the ride. For more on this planetary adventure, click [here](#).

Best Practices' Corner

Cape Breton Island has a number of "jewels" in its crown such as the world renowned Cabot Trail and of course just about anywhere around our beautiful Bras d'Or Lake. In past issues of Biosphere Highlights, we have usually had an article about best practices. The reason for these best practices is simply to help residents maintain the health of the Biosphere; that is, the watershed and the Bras d'Or Lake. Check out our Best Practices Initiative [here](#) and be sure to read the two lead articles by Dr. Br. Hatcher and Fred Baechler. An introduction to each of those articles follows.

Water quality monitoring in the Bras d'Or Lake

By Bruce Hatcher

Currently, there are three water quality monitoring programs operating in the Bras d'Or Lake (estuary). The longest running is the Canadian Shellfish Sanitation Program (CSSP) based on a 1948 USA-Canada public health treaty designed to assure the safety of edible shellfish traded across the border. The second regular monitoring of water quality in the estuary is part of the Atlantic Zone Monitoring Program (AZMP) which was initiated by the Bedford Institute of Oceanography (BIO) in 1998. The third water quality monitoring program is part of the developing Bras d'Or Watch citizen science project coordinated by the Bras d'Or Lake Biosphere Reserve Association (BLBRA). Such community-based monitoring programs have a great potential to inform and engage society on the relationship between water quality and Biosphere health.

If you are interested in learning more about these monitoring programs, check out the full [report](#) which is available on our website.

PERSPECTIVES ON THE BRAS D'OR'S FRESH WATER

By Fred Baechler

The key to managing and protecting the fresh water resources of our Biosphere is based upon the concept that: 'You can't effectively manage what you only have a limited understanding of'.

To develop that understanding requires a discussion around five key perspectives. The first perspective is to identify the Bras d'Or watershed; the land area (Figure 1) which contributes or "sheds" water to the marine waters of the Bras d'Or lake-estuary system. It encompasses some 2,512 km², more than twice the size of the estuary (1,085 km²). It is this watershed which determines the boundary of the UNESCO Bras d'Or Lake Biosphere.

How the land talks to the sea is through the fresh waters of its streams (the water we walk in) and groundwater (the water we walk on).

Continue reading the rest of this very informative article [here](#) on our website.



Middle River meandering across its broad valley floor near Yankee Line. Photos: F. Baechler



Craig Watson, CBU

Bras d'Or Lake Oyster Grow-Out

By Rod Beresford, Verschuren Centre, Cape Breton University

In the past, oysters in the Bras d'Or estuary supported a lucrative industry for locals. In 2001, significant oyster mortality occurred in farmed and wild oyster beds throughout the Bras d'Or Lake because of a parasite called *Haplosporidium nelsoni* (MSX), also resident in many other oyster growing areas along the North American east coast. The parasite cannot be eradicated and it is not even known how oysters are infected. A new means of developing a successful industry is necessary. This is the reason for a large oyster industry development research project across the Bras d'Or Lake involving 12 leases/sanctuaries, multiple provincial and federal regulators, Aboriginal and non-Aboriginal lease holders, and other partners. The project is funded by Nova Scotia Department of Fisheries and Aquaculture and Atlantic Canada Opportunities Agency. The research team is led by Rod Beresford (Verschuren Centre (VC), Cape Breton University) and includes Ken Oakes (VC), Robin Stuart (Waycobah First Nation Fish Farm), Joe GooGoo (Waycobah oyster grower and Mi'kmaw Elder) and Anita Basque (Potlotek First Nation Fishery). If successful, this partnered research project could change the way oysters are grown commercially in the Bras d'Or Lake, paving the way to revitalize the industry.

For more background on the history of the oyster fishery in the Bras d'Or watch the video "[Striking Balance](#)"

Social Values of Barachois Ponds

Lydia Ross was awarded a Master of Marine Management degree from Dalhousie University in February for her social science research centered on the value of the Bras d'Or barachois ponds. These ponds are recognized as ecologically significant by local Mi'kmaq Elders but there is a disconnect between their ecological value and their perceived importance by policy makers. Her work was directed at resolving this disconnect.



Wet Loss...Net Loss
The Impact of Policy & Climate Change on Wetlands
SYMPOSIUM • WORKSHOP

SAVE THE DATE
MAY 15-16 2019

WET LOSS, NET LOSS: THE IMPACT OF POLICY AND CLIMATE CHANGE ON WETLANDS
A symposium and workshop focused on management planning and policy change around Wetlands
Verschuren Centre, Cape Breton University campus

For more information visit:
www.cbu.ca/news-events/events/wetlands
Contact: wetlandssymposium@gmail.com



Wetlands Symposium on May 15th is open to the public. It will inform and educate participants about Wetlands and bring attention to emerging issues unique to Cape Breton/Unama'ki and within the context of Climate Change.



Photo of striped bass submitted by
C. Paul

Next BLBRA Board Meeting
April 10 at 1:30 pm.
Location: TBA
Check our Face book page or website next week.

Meet the Residents: Striped bass is a confusing fish

By Annamarie Hatcher

In March as our thoughts stray to our fishing tackle we consulted the official Biosphere fish watcher to learn about the popular fish for anglers, the striped bass. In fact, the large barachois pond in East Bay is a rewarding area to fish striped bass. In 2008, Cape Breton angler Christian Levatte caught a 57.9 pound striper in East Bay, a new Nova Scotia and Canadian record. So, where did they come from and will they spawn here in the future? These are questions that need to be answered if we are to manage this valuable fishery in our Biosphere. Read the full story [here](#).

Teachers, Check This Out!

Integrated, multidisciplinary, inter-cultural curriculum resources

The education committee of the Bras d'Or Lake Biosphere Reserve Association has created integrated, multidisciplinary, inter-cultural curriculum resources for elementary level students which are designed based on the guiding principle of 'Two-Eyed Seeing' from Mi'kmaq Elder Dr. Albert Marshall. These [resources](#) are downloadable from our website.

Two eyed seeing & Community Connections

Unexploded ordinances in the Bras d'Or - CEPI (The Collaborative Environmental Planning Initiative) is holding a community information session on the recent Department of National Defense (DND) reports on unexploded ordinances in the Bras d'Or Lakes. The meeting will take place at the Big Pond Fire Hall on March 22, starting at 2 pm – 5 pm. For more information, contact: Stan Johnson, CEPI Coordinator

Coming again this summer...



Be sure to visit our website at blbra.ca



Contact Us: blbra.ca/contact

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The BLBRA welcomes your comments or suggestions. Let us know if you do not wish to receive this newsletter. Address your comments or suggestions [here](#).

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Nova Scotia Institute of Science talks

Two talks by local scientists (Shelley Denny from Unama'ki Institute of Natural Resources (UINR) and Bruce Hatcher from the Bras d'Or Institute, Cape Breton University) sponsored by the Nova Scotia Institute of Science and will be held at the Nova Scotia Museum of Natural History in Halifax on April 1 and May 6. To find out more and get tickets, visit [this site](#).

Our Volunteers

Our Association is driven by many dedicated volunteers and this quarter we had the opportunity to recognize Maureen Cameron-MacMillan, Vice Chair of the Bras d'Or Lake Biosphere Reserve Association, on International Women in Science Day (February 11) and Dr. Teresa MacNeil, our founding Board Chairperson, on International Women's Day (March 8).



Maureen Cameron-MacMillan



Dr. Teresa MacNeil



Summer jobs for Students



If you are a student starting or continuing your University career this September and you are seeking an exciting summer job, send us a message.

We are looking for two students to work in our display area at the Alexander Graham Bell National Historic site. You will meet people from all over the world and have a chance to tell them all about our fantastic UNESCO Biosphere. The positions will be offered pending funding.

If you are interested in finding out more, send us a message on our Facebook page (Bras D'Or Lake Biosphere Reserve Association)

or contact the Chair of the Board of Directors, Dr. Bruce Hatcher:

Bruce_hatcher@cbu.ca