



THE BLUE HERON

The Bras d'Or Stewardship Society

P.O. Box 158, Baddeck, Nova Scotia B0E 1B0

VOLUME 16

JULY 2013

NO. II

Though the circumstances are on an entirely lesser scale, when considering the departure of Board Chair Pat Bates I couldn't help but think of a famous late nineteenth century 'Punch' cartoon with the caption 'dropping the pilot'. This depicts Kaiser Wilhelm 11 as the captain of the German ship (of state), having dismissed his long standing chancellor Otto von Bismarck standing looking over the guard rail of the 'ship' as he watches Bismarck walking down the gangplank to the dock below. Not that there was any equivalent of 'Kaiser Bill' in the case of the Society but the end result is similar. In both cases long standing pilots are no longer at the helm of their respective metaphorical vessels.

During the sixteen years of his tenure as chairman, Pat must have chaired some 150 or more meetings of the Society, wrote ("crafted") almost innumerable letters to a myriad of people inside and out side government, made many public presentations to other groups and bodies, met with

government officials and ministers at all levels, wrote letters and articles for papers, represented the Society in the media many times particularly on CBC's Cape Breton 'Information Morning' radio program, liaised with First Nations particularly with Eskasoni First Nation, while at the same time, he devoted long hours of several summers to looking after students the Society had mentored. In particular, with one such student as a sub-lieutenant equivalent he played a major part in the 'green boat' campaign that in the end successfully produced legislation that banned the dumping of raw sewage from boats into the Lakes. What a great experience for that student. In addition, during these years, he served on the boards of other voluntary groups among them the Collaborative Environmental Planning Initiative (CEPI) and the MacGillivray Guest Home.

Pat indeed was so central to the Society's function as the date of his resignation approached the board debated at some length the advisability or otherwise of winding up the Society's affairs. However, after considerable lively discussion, the board made the decision there was still a need and would be into the foreseeable future, for a financially and politically, independent group like the Society, unfettered by the politically vulnerable rules of charitable status to remain in place.

There were and are obvious practical consequences that follow from this decision. First and foremost, it meant the board had to find a new chair and a full slate of executive officers. This it has managed to do even if partially on a temporary basis. Leah Noble, has kindly agreed to become Secretary, Rosemary Burns to continue as Vice-chair and Henry W. Fuller agreed not only to continue as Treasurer (an office

he has held since 1997 with great benefit to the Society) but to become interim Chair until such time as the Society is able to fill this position on a more prolonged basis.

Even if this is an acceptable arrangement for the moment, down the road it is not a situation the Society should consider acceptable. It is too much to ask a busy person to do on behalf of the Society and in addition Henry has made it clear he does not want to take on both the chair and treasurer positions in the longer term not least because it is in danger of making the Society look, as he put; "too much like a one man show".

James O'Brien

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NOTICE

THE ANNUAL GENERAL SUMMER MEETING OF THE SOCIETY WILL BE HELD ON SATURDAY, AUGUST 17, 2013 AT 10:30 A.M. AT THE BADDECK COMMUNITY HALL ALL MEMBERS ARE INVITED TO ATTEND AS WELL AS INTERESTED CITIZENS WHO ARE CONCERNED WITH THE FUTURE STEWARDSHIP OF THE BRAS D'OR LAKES.

"Our goal is to protect, conserve and restore the Bras d'Or Lakes"



NEWS ITEMS:

THE 2012 ANNUAL GENERAL MEETING (AGM)

The AGM of the Society was held on May 4, 2013 in Baddeck. A good turn out occurred with just under 30 attendees. CBC's Steve Sutherland, our AGM guest speaker, made a fine presentation on the concept of leadership at the community level citing local individuals who have made a difference. Pat Bates, Society President, provided an overview of the Society's past year's activities. Pat Bates's report is printed in this newsletter.

NEW BOARD MEMBERS

Two new board members have been elected to the Society's Board. Dr. James Carson, a retired dentist who lives in West Bay. Dr. Carson has had a long term interest in the Bras d'Or Lakes. Charlie Dennis, a prominent member of the First Nations from Eskasoni was appointed to the Board. Charlie has been a stalwart in his community with regards to leadership and his dedication to stewardship of the Bras d'Or Lakes through the Eskasoni Fish and Wildlife Commission and the Unimaki Institute. Charlie has served many roles on various committees and as Eskasoni's Chief. We welcome both individuals to the Society's board.

LAND PRESERVED

Today about 2,000 acres of private land has been protected in the Bras d'Or Lakes watershed either through conservation easements or outright gifts of privately owned

property. The Nova Scotia Nature Trust (www.nsnt.ca) and the Bras d'Or Preservation Trust (www.brasdorpreservation.ca) have worked to encourage land owners to protect Bras d'Or Lake's shoreline and land of ecological significance. There are a number of properties under consideration by their owners to be worthy of conserving and protecting. Properties that have conservation easements in place or owned by a registered land are not subject to Nova Scotia property taxes. The Bras d'Or Preservation Trust announced on March 8, 2013 the protection of 40 acres at Mackinnon's Harbor.

BEN EOIN MARINA

The new 4.8 million dollar Ben Eoin Marina will be in full operation for the 2013 boating season. This highly subsidized, tax payer financed infrastructure is a significant component in creating a four season resort at Ben Eoin to include the existing ski hill, the Lakes golf course, a proposed high-end residential development and possibly a hotel. A significant amount of public controversy has evolved from the construction of the marina as the project developed. The marina is structured as a non-profit private club with annual dues payable. The marina property is owned by Enterprise Cape Breton Corporation (ECBC). ECBC has had major economic input in providing funds for the construction of the Ben Eoin marina and the Lakes golf course as well as for planning and marketing initiatives.

RACE THE CAPE

On July 18, 2013 a sail boat regatta will commence that has been titled "Race the Cape". This is a five day event that will feature sail boat races in four segments from St. Peter's to Ben Eoin, Ben Eoin to Baddeck, Baddeck to North Sydney

and North Sydney to Sydney. This regatta is an ECBC promotional event to promote the Bras d'Or Lakes as a recreational boating venue. (www.racethecape.ca)

2013 SUMMER STUDENT

The Society applied for a summer student for 2013. Natalie Fagan, a biology major in her final year at CBU, will be working on behalf of the Society under the supervision of Bruce Hatcher at the Bras d'Or Institute. Board member Jim Foulds has helped facilitate this process. The work period is for 8 weeks commencing on May 20, 2013.

See insert, re: *Bras d'Or Summer Student by Jim Foulds*

FROM OTHER GROUPS

Middle River Watershed Society

Chuck Thompson

Current membership includes:-
Chuck Thompson President, Jim Morrow Vice President Bruce MacDonald Treasurer, Jonathan Saul Secretary, Bruce Aikman, Charlie Fazekas, Jeremy White.

The Middle River Watershed Society (WRWS) believes that a healthy river is not only a vital ecological link between all living things in its watershed but is also a vibrant community asset for the benefit of the next seven generations and beyond.

However, this can only be possible with strong partnerships with organizations like yours (and people

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like you).

The future holds exciting times for Canadians who live in rural and wilderness areas.

The focus of the federal government towards protection has changed. The responsible stewardship and management of our community assets must come from those with an interest in them if they are to be protected and nourished.

Many like-minded individuals are ready to take up the various challenges facing rural Canada and create partnerships and legacy projects for the future.

The MRWS hopes that you will recognize the Society as an initial point of contact when proposals, projects or activities are being developed in the watershed.

Partnering and connecting with government agencies, industry, community leaders and volunteers towards a common vision for the watershed's sustainable future is, we believe, the basis for our watershed society.

Over the years the Middle River Watershed Society has been practical and direct in its support of habitat preservation and a strong challenger to those who would damage that ecosystem. The MRWS aspires to engage community recreation user-ship on both private and crown land, as well as continued protection of our arable agricultural spaces while expanding the educational opportunities in schools and the ecotourism industry based on the integrity of our watershed.

We hope that we can assist all like minded organizations in their endeavours to achieve their goals and aspirations within the Bras d'Or Watershed.

The Middle River (Victoria County) Watershed Society was incorporated

under the Nova Scotia Society's Act in 1993. With a mandate to preserve and enhance the quality of life in and around the watershed the Society maintains its status as a charitable organization.

Contact

Chuck Thompson, President.

1-902 295 2545

Jim Morrow, Vice President.

1-902-295-3040

The Mac Kinnon Harbour Survival Association (MHSA)

Charlie MacDonald

In order to reverse the deteriorating condition of MacKinnon Harbour the MHSA (formed in 1995) having obtained necessary government approval, arranged to have the entrance to MacKinnon Harbour from the Bras d'Or Lakes re-opened, to allow Mother Nature to do her work and restore the water quality. As a result, the Harbour is once again a healthy water system, perfect for kayakers, canoe enthusiasts, sailors and anyone who enjoys the peace and tranquility of the outdoors. In addition it is a safe refuge for boaters in bad weather, has two thriving eagle nests and great place to enjoy a quiet day. To date it is one of the few success stories of its kind.

In the early 1900's MacKinnon Harbour was a port of call for Gypsum Vessels.

It is also worth noting David MacLellan, Chair of MHSA is a certified Coast Guard Auxiliary First Responder, with a sea worthy 28' by 11' boat. He lives in Mac Kinnon Harbour. His contact number is 902 725 2323. However, if help is required it is advisable to call the emergency

channels and numbers first. A final point and a friendly reminder to boaters. Please do not empty holding tanks into the Bras d'Or Lakes. There are pump-out stations for this purpose at several locations around the Lakes.

Ross Ferry Stewardship Society

Terri Shobbrook

The Society has a membership of about 30. The 2013 Executive Committee members are: Terri Shobbrook, Eliot Frosst, Tanya Grant, Marilyn MacKenna, John Hugh Edwards, Murdock Morrison and Alex Gilchrist.

The Ross Ferry Marine Park, located in Ross Ferry on the scenic Bras d'Or Lake, is a designated Provincial Park that is operated independently by the Ross Ferry Stewardship Society (a registered charitable organization). The community-run Stewardship Society does not receive any government funding. Ross Ferry Marine Park has been completely upgraded and is maintained by volunteers. It exists solely by donations, fundraising, dedication and hard work.

Our park is a wonderful gathering place that is well utilized, especially on the weekends. We have covered picnic facilities, a playground, and a lovely walking trail. We also have a boat launch with pump out and shower facilities for boaters.

Let It Rain

Bill Danielsen

In an average year, about four and a half feet of precipitation – rain plus melted snow – fall onto the waters of the Bras d’Or Lakes. An additional two to three feet flow in from rivers and streams. Thus, over seven feet of rainwater enter the Lake annually. This is a great deal of water! Collected and bottled, it could provide one litre of fresh water every day for every human on earth. Surely, fresh water is Cape Breton’s most abundant and precious natural resource.

All that fresh water enters the Lake at the “top,” of course – at the Lake’s upper surface. At first, it tends to remain on top, because it’s lighter (less dense) than the briny water below, and it sort of floats. Eventually, however, wave and tidal action mix it with saltier, deeper water. But the mixing isn’t complete, so the Lake’s surface waters remain less salty than at depth.

Despite gaining huge amounts of fresh rain water, the Lake isn’t rising by several feet each year. Evidently, an equal amount of water must flow out from the Lake to the ocean if the Lake’s level is to remain more or less constant. That export occurs almost entirely in surface and near-surface currents passing out the Great Bras d’Or Channel. (Much smaller outflows occur through the Little Bras d’Or Channel, and through the St. Peters Canal when the locks are operating. Also, a very small amount escapes vertically, by evaporating.)

Although the outflowing surface currents aren’t as saline as the Lake’s deeper waters, they do contain significant salt due to earlier mixing by tides, currents, and friction. So these outflowing currents remove both water and salt. But the Lake’s salinity isn’t decreasing over time. How, then, does it replenish its salt? The answer lies below the surface, where a current of ocean water flows into the Lake from Sydney Bight

through the Great Bras d’Or Channel. The channel carries a two-way current, simultaneously exporting less salty water at upper levels while importing saltier ocean water below.

The bottom line is that the Bras d’Or’s two sources of water – fresh water from precipitation and salt water from deep currents – are just sufficient to balance the surface outflow. In this way, Lake levels and salinities remain more or less constant over the years. Clever of the Lake, to keep its watery disbursements equal to its income, thereby maintaining steady quantities of water and salt!

Obviously, precipitation is the key element in the Lake’s water balance. (As a meteorologist, of course I think that weather rules everything.) After all, it’s all that fresh water piling up in the Lake that forces the surface current out the Big Bras d’Or Channel. And on a slightly ominous note, any change in precipitation patterns could cause changes in the water fluxes, leading in turn to changes in the Lake water itself.

You have probably seen reports that climate change is altering precipitation patterns and violent downpours are becoming more common. And now, you must be wondering how such storms might affect the Bras d’Or’s water balance. So, surely you must feel an awakening urge to participate in some project that monitors rainfall in the Lake’s watershed.

Well, I have good news. The Cape Breton Rainfall Network is in its third year of operation for the summer and autumn seasons, and we are looking for more participants – lots more! It’s easy and fun. Just install a plastic rain gauge in your yard, read and empty it daily, and email your measurements to Downspill@gmail.com. I will store your reports, plot them on a map of Cape Breton showing everyone’s readings, and email you the plotted chart for each significant rain event. Join for a week, a month, the whole season! To learn more, email me at the address above. With your help, we

can monitor the Lake’s water before it even gets there. Hoping to hear from you!

To The Editor

It is always interesting to contemplate the future, particularly when the rate of change is increasing and we are trying to make the best choices we can in all matters.

The Bras d’Or Stewardship Society was launched sixteen years ago with the mission to reduce, if not eliminate, the discharge or dumping of contaminated substances in the Bras d’Or Lake or its in-feeds. While that objective remains valid, the future sustainability of the Lake and adjacent communities will become more of a preoccupation. For example, over the past couple of years, there has been a significant shift downward in the various fisheries. There has been a move to protect increasing areas of private lands and/or various conservation easements and provincial regulations regarding onsite septic systems have been relaxed, not necessarily for public benefit.

We live in a region of Canada where the economy will trump the environment on nearly every issue. The Bras d’Or Watershed has been spared any significant degradation so far simply due to the absence of any industrial activity. The exception might be the manner in which gravel pits and quarries as well as forestry activity are pursued in future.

The wisdom in future could be an examination of what is occurring in other lake systems in Canada. While the Great Lakes system is not a very helpful example, it would be informative to understand how they are dealing with immigration of dangerous species, the dropping of water levels in Lake St. Claire and Lake Huron with related decreasing

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water levels in Georgian Bay. Some questions in respect to the above evolve around Lake drainage resulting from some dredging activity to allow continuation of commercial shipping but also water levels dropping due to climate change. Finally, management of the Bras d'Or eco-system should be aware of changes in Federal Environmental regulations in the 2012 Federal budget. The Lakes is one of ninety-seven waterways that remains on the Federal list of water courses subject to navigational monitoring.

While we should be grateful that the Bras d'Or Lakes escaped federal cuts to the number of waterways it oversees for navigational and environmental infractions, local agencies will need to be vigilant in ensuring the relevant federal departments are drawn into evaluation of any proposed risk-bearing projects.

Pat Bates

Mapping and Climate Change Adaptation

Veronika Brzeski

In March 2013, the Ecology Action Centre completed a 2-year climate change adaptation study in Cheticamp funded by the Rural Secretariat of the Department of Agriculture. The study involved 24 partners from local and provincial government, academia and non-government organizations and focused on community engagement and awareness towards climate change adaptation. More information as well as project outputs can be viewed on-line at: www.cccheticamp.ca. Why is there so much focus on

Climate Change adaptation? Well, for one thing, even if we drastically reduce our greenhouse gas emissions tomorrow, the wheel is already set in motion: our climate is already changing and will continue to change dramatically in the next century. By all means try to reduce your carbon footprint but also monitor changes and adapt to them.

In Cape Breton, our coastline and our rivers are most vulnerable to change and having so many miles of coastline and riverbank, mapping is a great tool to monitor that change, to raise awareness of the effects of climate change, to engage the community in assessing the vulnerabilities, and to incite feedback. Throughout the course of the project, three types of maps were used: GIS maps, aerial photographs (superimposed on GIS maps), and LiDAR DEM maps.

GIS Maps:

GIS (Geographic Information System) maps are the cheapest and easiest to acquire. They can include as many or as few layers as required – layers that indicate different data such as topography, buildings, flood risk information, geology, property boundaries, etc.

Historical aerial photographs:

Aerial photographs can capture historical information about an area and can be used to identify and, in some cases, measure changes. Before they can be used, aerial photographs must be digitized, orthorectified (to remove distortion) and superimposed on GIS base maps.

LiDAR DEM maps:

LiDAR (Light Detection and Ranging) was developed in the 1960s and is a technology used to create high resolution maps with accurate elevation data. The data are collected by laser beams emitted from an airplane (read: not cheap). In the project, the coastline

of Cheticamp was shot and the data used to create a digital elevation model (DEM) or simply put: three-dimensional maps.

How we used the maps:

Community mapping exercise

Using the maps as visual cues, the entire area of concern was visited, assessed and discussed without physically moving community members (it's much easier to pour over maps than trying to walk the entire coastline with 40+ people). Large prints (approx. 100cmx120cm) were kindly produced by Parks Canada and the NS Department of Natural Resources and laid out on tables at community gatherings. After a brief (or not so brief) introduction to climate change and its potential impacts, participants were encouraged to draw, write and mark them up with all relevant information. The focus was to mark vulnerable areas but also any information relevant to coastal planning -- erosion, flooding (including sewer overflow), armouring and infilling, and points of interest (scenic views, bird nesting, swimming, safety concerns, moved infrastructure, etc.).

Please note:

- Pass on the information collected on the maps to decision-makers and planners
- Discuss what the local community can do to prepare, to mitigate, and ensure citizen safety

Assessing coastline erosion

Although applied successfully in many cases to measure coastline erosion in parts of the world, our attempt in Cheticamp was not successful. Aerial photographs from 1999 and 2009 were too short a time span and the error of GIS mapping exceeded erosion rates. However, this technology is still relevant and we would recommend using a longer time span.

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Please note:

- Aerial photographs provide historical rates of erosion – climate change will increase erosion.
- On the ground monitoring produces the most accurate erosion rates: Drive a stake into the ground and regularly measure the distance between the stake and the coastline.

Flood Risk Mapping

LiDAR data is not only expensive to acquire but also requires trained technologists to process. In Cheticamp, LiDAR data was processed by the Department of Geography at St. Mary's University to produce the Digital Elevation Models (DEM). On these maps were superimposed climate change scenarios for the local area: future scenarios of sea-level rise and extreme storm surge for the years 2025, 2050, 2085 and 2100¹.

The resulting maps were presented at various functions to raise awareness of climate change impacts on the area. In most cases, the maps effectively captured the public's attention, with many people stopping to study them closely and even locate their homes and other points of interest. Individual reactions varied considerably. Several viewers commented that the projected flood risk areas did not surprise them as they had seen flooding there during past major storms. Some were more surprised by projected risks where improvements were thought to have been made. For instance, armoring was thought to provide more flood protection than the maps indicated; and a bridge reconstruction, although it should help with future flooding, appears insufficient to deal

with long-term projections. As the map projections indicated part of Cheticamp's downtown would be under water before the end of the century, it caused a stir and media attention.

When hurricane Sandy and its associated 4-meter storm surge approached NY state, state planners used LiDAR DEM maps to determine exactly who and what was at risk along the coast and began a planned evacuation.

Please note:

- LiDAR flood-risk maps can be misinterpreted and must be explained. Sea level rise is permanent, storm surge will recede.
- Erosion can exacerbate the effects of a large storm and change the future coastline thus changing future projections on flooding.
- Flood risk maps may raise concerns about the value of coastal real estate – be sensitive.
- Applications of LiDAR are endless: forestry management, mapping and cartography, coastline management, transport planning, quarries and minerals, cellular network planning, planning and engineering during construction projects (such as the tar ponds in Sydney), etc. Forge partnerships among agencies to share and acquire the data.

Where to get maps:

- **GIS maps and aerial photographs: GeoNOVA (NS Geomatics Centre, Digital Data Distribution, <http://www.nsgc.gov.ns.ca/>)**
- **LiDAR data sources for NS: Applied Geomatics Research Group and Leading Edge Geomatics**

¹ Richards, W. & Daigle, R. (2011). Scenarios and guidance for adapting

to climate change and sea-level rise – NS and PEI municipalities. Prepared for the NS Dept. of Env. and Atlantic Canada Adaptation Solutions Association. Retrieved from <http://atlanticadaptation.ca/sites/discoveryspace.upei.ca/acasa/files/Climate%20Change%20Scenarios%20NS%20and%20PEI%20-%20Final.pdf>

Lake-wide Non-native Tunicate Research Program

By Kevin C. K. Ma, E. Laurence Forget-Lacoursière, Ladd E. Johnson, and Christopher W. McKindsey

Non-native species are a problem worldwide, and the Bras d'Or Lakes are fortunate to only have one established non-native sea squirt (tunicate) species: the Golden Star Tunicate (scientific name: *Botryllus schlosseri*). This species is well-established throughout the Lakes and forms encrusting colonies fouling underwater structures such as boat hulls, wharf pilings, and floating docks. This species also grows on organisms such as eelgrass, mussels, oysters, and seaweeds and is considered "invasive" (in other words, can cause environmental or economic problems). This summer season, researchers from Laval University and Fisheries and Oceans Canada are undertaking a lake-wide research program to study the ecology of the Golden Star Tunicate in the Lakes.

The Golden Star Tunicate and other invasive tunicate species can spread from an infested site to a new un-infested site by a number of

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means, including via the movement of boats with fouled hulls and the introduction of contaminated aquaculture products and gear. Early detection of this and other invasive species is important because this will improve the chance of controlling their spread before they become an ecological problem for the healthy functioning of an ecosystem and an economic problem for aquaculture operations. In particular, a tunicate infestation of a mussel farm can be financially and operationally unsustainable for growers.

The overall goal of our research is to improve methods for the early detection of marine invasive species by better understanding spatial patterns of invasions in relation to environmental properties of the Lakes. This will be done by determining how tunicate colonisation and abundance varies at different spatial scales, ranging from tens of metres to tens of kilometres.

Two important environmental properties are salinity (the amount of salt in water, measured as parts per thousand [ppt]) and water temperature, and both can affect various aspects of tunicate biology, such as growth and reproduction. Our research will focus on the influence of salinity on tunicate abundance because salinity varies greatly among the different parts of the Lakes at any given point in time. Based on laboratory studies, the Golden Star Tunicate is a species that can survive under a broad range of salinities and can tolerate conditions ranging from 14 to 38 ppt (average seawater is around 34 ppt). However, little is known about how this species can become established and cause problems under these different conditions.

Many other marine invasive species can tolerate a relatively wide range of salinities and or temperatures, which, not surprisingly, are characteristics that make these species successful biological invaders. Although the Golden Star Tunicate is presently the only non-native tunicate species in the Bras d'Or Lakes, the Vase Tunicate (*Ciona intestinalis*) and the Violet Tunicate (*Botrylloides violaceus*) are two other non-native tunicate species that are commonly found just outside the Lakes. Hence, frequent cleaning of boat hulls will help decrease the chance of tunicate spread. However, once a new invasive species is introduced, early detection and rapid response become essential management options. Our research will contribute directly to the science of early detection as we investigate how tunicate abundances vary at different spatial scales.

Kevin Ma (kevin.ma.1@ulaval.ca) is a doctoral student under the co-directorship of Drs Ladd Johnson (Professor, Laval University) and Christopher McKindsey (Research Scientist, Fisheries and Oceans Canada). Laurence Forget-Lacoursière is a summer field assistant pursuing an undergraduate degree at Laval University.

New Hope for a Commercial Oyster Fishery in the Lakes?

Jim Crawford

On Nov. 6, 2012 there was a meeting of interested parties (Industry, Gov't, University and

First Nations) to follow up on the first gathering 5/11/2012, that centered around the revitalizing of the oyster industry in Cape Breton. There was a common sense consensus that we need to Grow Oysters Quicker. A steering committee formed with which I am involved. I am determined to keep the focus on the grow oysters quicker mantra. Working with the Regulators we hope to be able to import disease resistant (MSX) triploid seed from Maine. During the meeting of 11/6/2012, some thought that growing a "cocktail size" (2.5") oyster would help. Again, this would get the product to market hopefully before a disease(s) would kill the animal. Grow-out methods were discussed which included the use of upwellers and suspended gear to grow oysters quicker. Rod Beresford of Cape Breton University has worked on a method to perhaps clean oysters from MSX. If his method of cleaning is workable for the Industry, than this could be an asset to getting oysters to market. The need for our own oyster hatchery on Cape Breton was also discussed. There is no question that for the Industry to rebuild there has to be a hatchery here in the waters of Cape Breton. Perhaps in the next "Report" there can be some good news of Oysters Growing Quicker in the Bras d'Or Lakes and the waters of Cape Breton. Time and the Regulators will tell.



The Bras d'Or Stewardship Society

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Bras d'Or Watch
to report any observed acts, incidents and violations
that threaten the integrity of Bras d'Or Lakes please call
any of the directors listed above.

Our Email: www.brasdorstewardshipsociety.org

2013

BRAS D'OR STEWARDSHIP SOCIETY

MEMBER	<input type="checkbox"/>	\$15.00		<input type="checkbox"/> Yes, I am in favour of conserving and restoring the
FAMILY	<input type="checkbox"/>	\$25.00		Bras d'Or Lake and watershed through
CONTRIBUTOR	<input type="checkbox"/>	\$50.00		responsible stewardship.
SUPPORTER	<input type="checkbox"/>	\$100.00	Name	
LIFETIME MEMBER	<input type="checkbox"/>	\$500.00	Address	

*Mail check or money order along with your name
and address to:*

Bras d'Or Stewardship Society
P.O. Box 158
Baddeck, Nova Scotia, B0E 1B0

Phone

e-mail

Fax

**BRAS D'OR
STEWARDSHIP
SOCIETY
CHAIRMAN'S ANNUAL
REPORT
AGM APRIL 13, 2013**

Pat Bates - Chairman

Traditionally, I have commenced these short reports with a cataloguing of the various actions taken by the Society over the past year to protect the Bras d'Or Lake, some news of activities of others as related to our mandate and acknowledgment of the importance of our volunteers. I will get to some of that, but first I think it is important to note how the ground is shifting. Sixteen years is long enough to secure some measures of change.

For example, the population of Cape Breton Island has declined significantly since 1997. In Cape Breton Regional Municipality where I live, the population has declined from about one hundred fourteen to approximately ninety-nine thousand currently. Population of the neighbouring counties has been of similar experience. The population characteristics of the island have proportionally changed. Our population is ageing, our demographics have shifted, our death rate on balance exceeds our birth rate. You may ask what this has to do with the Lake. Well, for example, the number of complaints we receive about straight pipe sewage discharge from cottages, bungalows and camps have decreased. Admittedly some cottages have been retrofitted with new onsite systems while some older bungalows and camps are vacant. Regarding sewage discharge from pleasure craft, experiences have shown an overall decrease in boating activity on the Lake with the exception of the Lions Club Marina at St. Peters. The pump-out experience at smaller marinas is low and the Dundee

Marina has closed.

Within the Society, the events of the past year have pointed out some interesting changes. For example, the corporation's pre-occupation with operation of aggregate quarries has increased. The early evidence of sea level rise and tidal action is more evidenced in terms of bank erosion. And the Federal Budget tabled March 29, 2012 changed the rules in a number of areas lessening federal government involvement in projects related to resource development where environmental review and monitoring was traditionally required. In addition, significant changes were made to the 1992 Regulation in respect to the environment and particularly regarding the Fisheries Act as well as the cancellation of the National Round Table on the Environment and the Economy. To quote from the Globe and Mail's coverage on the budget, "Stephen Harper's vision of proper federal roles in which Ottawa is for less activity in areas of provincial jurisdiction like natural resource management, environmental protection and health policy."

The question is, what does all this mean for NGOs such as the Stewardship Society on a day-over-day basis? Clearly it indicates that while being watchful of such bread and butter incidents of discharges of containments into the Bras d'Or, serious attention will have to be paid to changes in public policy. For example, as indicated earlier, the National Round Table Forum has been cancelled effective March 31, 2013. While largely preoccupied with reporting on emissions, its work was relevant to those interested in waste disposal and acid rain and generally, an important window on climatic conditions and management in Canada.

During the summer of 2012, the Society hired an engineering student who assisted with a review of potential impacts of the changes to Environmental regulations in the 2012

Federal Budget.

Officials for the Society invested considerable time in an examination of the planned Marina at Ben Eoin. This project, representing a major investment, has proceeded under Government of Canada Ownership and is expected to be in operation this season. Final outcome on future monitoring of the site is yet to be determined.

As indicated earlier, establishment of quarries for production of gravel and aggregates both government and privately operated sites will require ongoing surveillance. The experience is frequently one where large quantities of sedimentation or the "fines" from crushing processes are permitted to drain into the Lake, partly the result of insufficient settling pond capacity. Further, there continues to be a hole in the regulation in respect to permitting quarry establishment if under a four-hectare configuration, hence no public consultation required.

Earlier we spoke of the change in some circumstances over the past sixteen years respecting care and monitoring of the Lake system. One clear indicator of such change is the growth in the number of agencies performing different functions to strengthen protective measures and future sustainability of the Lake, its environment and compatible economic base. A listing of the key agencies, should be noted.

- Bras d'Or Institute, Cape Breton University
- Unamaki Institute of Natural Resources
- Bras d'Or Stewardship Society
- Bras d'Or Lakes Biosphere Reserve
- Collaborative Environmental Planning Initiative
- Pitu'Paq
- Bras d'Or Preservation Society

The Society again expresses gratitude to all members of the Volunteer

...cont'd on reverse

Board of Directors for their faithful and continuous support for its work. Also, we wish to acknowledge the many years of service of retiring Board Members and Secretary, Lynn Baechler and welcome Leigh Noble to the Board as acting secretary.

It is the Society's hope that the public will continue its support in efforts to protect and enhance the value of the entire Bras d'Or Lake ecosystem and a sense of community ownership will emerge from our collective effort.

Biosphere Update

Jim Foulds

The Bras d'Or Lake

Biosphere Reserve Association continues to work on a variety of projects to promote sustainability in the watershed:



- A Web-based atlas is now on-line and available to the world. Over 200 community groups around the biosphere and beyond are indicated for their location and information about them. Please check it out by using the web site (www.blbra.ca) and look for it under "Documents". Check to see if there are groups we should add or if there are any errors – we need your eyes to help us!
- The Science Curriculum project has reached a critical stage. The working group has finished Phase I – collection of the content for the manual and are moving onto Phase II - editing the material that has been collected and working with the Department of Education. We have allocated some of our funds toward moving this project forward and we hope to get help from the Dept. of Education!
- The Use of the BLBR Logo is an issue

that is coming to the fore. It is great to see more and more businesses and other organizations asking to use the BR logo to promote the area for tourists. We think the logo is an exciting graphical representation of a balanced relationship between people and the environment. It is our "brand" and we are looking for ways that it can help sustain the Association. Part of this is the process to get it Trade Marked.

- A new project getting legs is the idea of a Walking Trail around the biosphere! This idea came out of our last Update and is an exciting prospect. We have a dedicated steering committee working on this and there will be some exciting news to share on this – soon!
 - Our priority area of awareness building is also showing itself in the development of a Signage – Master Plan. We have secured funds to contract the development of a master plan for signage around the biosphere. This will give much more recognition to the designation and should help give tourists a better experience.
 - A Fund Raising Concert is set for July 20th, 2013! Come out to the St. Columba Hall, Iona to hear Rob Woodley and friends in support of the Biosphere! 7 p.m.
 - The DONATE button on the web site is now working – giving you the option to support our work via Credit card or PayPal. Heck, if you are old-school, mail us a cheque at: 532 Chebucto St, Box 711, Baddeck, NS B0E 1B0.
- We encourage you to contact us if you want more information or if you want to help. Browse the web site – www.blbra.ca. We have a lot of information posted there. You can also follow us on Facebook, Twitter and/or sign up to receive notices of anything new that is posted to the web site – a handy way to keep up to date!

Thanks for your support!
Jim Foulds, Chair, Bras d'Or Lake Biosphere Reserve Association

Bras d'Or Summer Student 2013

Introducing Natali Fagan



Natali Fagan is a bachelor of science student at Cape Breton University. She majors in Biology and has great interest in marine ecology, environmental science, MSIT, and the two-eyed seeing approach to science and education. Natali plans to continue her education in the area of environmental studies at the graduate level.

Natali tries to be an environmentally friendly person and jokes that a martial artist such as herself is a good candidate to aid in the "fight" for nature. She is currently working towards her black belt in uchi-ryu karate. This aspiring scientist is also passionate about "the sweet science" and competes in the sport of amateur boxing.

This is Natali's second summer working at CBU's Bras d'Or Institute and her first time as the Bras d'Or stewardship society's summer student. She has been working on a two part educational film about the Bras d'Or Lake Biosphere Reserve. Natali wrote, narrated, filmed, and edited this project herself but a good amount of the photographs were graciously provided to her by local photographers. She is under the supervision of Dr. Bruce Hatcher; the director of the Bras d'Or Institute for Ecosystem Studies at CBU.

If you would like to know more about Natali's work and her film project you can contact her at cbu10jcz@webmail.cbu.ca