

THE BLUE HERON

The Bras d'Or Stewardship Society

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

VOLUME 18 JULY 2014 NO. II

Editorial GETTING ON TRACK

At the April 2014 AGM of the Bras d'Or Steward Society, one of those who made a presentation to the meeting was Mr. Joe Janega. Apart from being a Port Hawkesbury Councilor for the past 11 years, Mr. Janega has a Master's Degree in structural engineering and has run his own engineering business for 35 years. That is, when it comes to 'structures' he should know what he is talking about.

His subject at that meeting was what he saw as the parlous *structural* state of the Cape Breton & Central Nova Scotia Railway (CB & CNSR) owned rail line, that connects Sydney to St. Peter's Junction, in particular of the Barra Strait Railway Bridge, concerning the safety of which he

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has serious reservations. During his exposition, he passed around a series of photos that certainly suggest he has good reason to have such reservations.

Subsequently government experts reached the opposite conclusion as apparently did the current owners of the track (its officials threatened to sue Mr. Janega and PH Mayor Billy Joe MacLean for trespass).

Yet, in an article in the Friday, June 27 edition of the Cape Breton Post headed 'CB Calls For Railway Reprieve' reporting on a special meeting of the Cape Breton Regional Municipality (CBRM) concerned with the possible abandonment of this line, the NS Transport Minister Mr. Geoff MacLellan, stated that it would need about \$50 million to "stabilize" the line. In addition, around the same time CB & CNSR announced it had applied for permission to shut down this section of line permanently, even though it would mean the loss of a NS government subsidy of about \$2 Million a year.

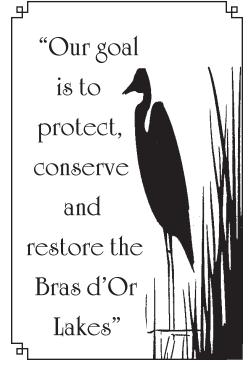
In essence, it would seem government and owners tacitly confirmed Mr. Janega's opinion.

As might be expected, for obvious economic reasons, possible line closure is not a popular option with the Cape Breton Regional Municipality (CBRM). Even, if as seems to be case at present, the line is in poor shape, some 500,000 tonnes of materiel still moves along it each year. Thus abandonment

...cont'd on page 2

NOTICE

THE ANNUAL GENERAL
MEETING OF THE SOCIETY
WILL BE HELD ON
SATURDAY, AUGUST 9, 2014
AT 10:00 A.M.
AT THE MASONIC HALL
IN BADDECK
ALL MEMBERS ARE INVITED
TO ATTEND AS WELL AS
INTERESTED CITIZENS WHO
ARE CONCERNED WITH THE
FUTURE STEWARDSHIP OF
THE BRAS D'OR LAKES.



Editorial cont'd ...

of the track would not only be a significant loss to local businesses now, it would add to truck traffic on the highways with all the negative effects of that.

Furthermore, loss of a rail link between Sydney and St. Peter's would surely strike a serious, if not fatal, blow at CBRM's plans to develop Sydney Harbour into a deep sea port. One way or another, loss of this link would surely have dire economic consequences for the CBRM and indeed for the whole of Cape Breton.

What this in turn means most likely, is a continuing decline in total population numbers and a continuing increase in proportion in numbers between young and old with all the dire consequences forecast to follow. Many, if not most, are also aware of the consequences for the Bras d'Or Lakes if the Barra Strait Bridge or indeed any other section of the lakeside track collapsed and a loaded wagon or several wagons of noxious materials, emptied into the Lakes.

Given this scenario, the choice of options appears to be;

- 1/ Abandon the line down. This would certainly remove a grave threat to the ecology of the Lakes, it would also though be a grave threat to economic development plans for the CBRM.
- 2/ Find \$50 million (or maybe more, a lot more), fix the track (and improve rolling stock design). With this done, it should at least reduce the likelihood of gross pollution of the Lakes while encouraging Economic Development in the CBRM.

3/ Let things go on as they are and

hope for the best.

4/ An uneasy mix of all the above or ??

Sad to say, it is probably the third option that will prevail until the unmentionable hits the fan and, if Mr. Janega is right, that might be sooner rather than later, with results that could be little short of catastrophic for the entire ecosystem of the Lakes.

James O'Brien

NEWS ITEMS:

The Annual General Meeting

The annual general meeting of the Society was held on April 26, 2014 at the Masonic Hall in Baddeck. There was a good turn out of close to 30 individuals. The activities of the Society were reviewed. Three speakers, Terry Power, Joe Janega and Robert Bancroft, provided overviews of the current status of the Nova Scotia eagle population, the Cape Breton Railway's infrastructure and the current rapacious wood harvesting practices being encouraged by the Province of Nova Scotia with regards to the cutting of trees harvested and chipped for the production of electricity at the biomass generating plant in Port Hawkesbury.

Cruise Cape Breton

new organization has been formed to promote the Bras

d'Or Lakes in an attempt to attract more recreational boaters to the area. \$620,000.00 dollars has been ear marked by ECBC to spend on a marketing initiative by Enterprise Cape Breton Corporation over a three year period. A marketing manager has been hired to staff an office at 500 Kings Road in Sydney.

A Rising Tide

n early May 2014, a presentation was made in Baddeck regarding the potential threat of rising sea water levels in the Bras d'Or Lakes as a result of climate change. The focus was on where future high tide water levels may encroach on Baddeck's shorefront. The afternoon session was instructive in making real this threat in terms of sea water property encroachment and the fact that we must look forward to the possibility that Baddeck's Water Street might well be below the future high water mark!

Bras d'Or Lakes Interpretive Center

In the fall of 2013 it was announced that the Bras d'Or Lakes Interpretive Center housed in Baddeck's 'old library' was closing. The reason for closure was due to lack of funds. The diorama that was the focus point of the interpretive center's draw has been moved to the Alexander Graham Bell Museum in Baddeck, now referred to as a national historic site. Hopefully, this new location will provide visitors with the same information that informed about the history and environmental attributes of the Bras d'Or and its watershed.

News Items cont'd ...

Bras d'Or Yacht Club

addeck's Bras d'Or Yacht Club has commenced the rebuild of its water front infrastructure that has suffered from the ravages of the weather over many years. To date, new marine wolmanized pilings have been driven to support a seawall and a new cement decking. Once this work is completed, the BYC will have a new lease on its waterfront which had become user unfriendly and structurally unsound. Both public and private monies have been provided for this work.



ace the Cape is five days of Challenging point-to-point sail racing, both inland and coastal ocean, broken into five legs of up to 40 nautical miles along Cape Breton Island's rugged Atlantic coast and into and through the Island's Bras d'Or Lakes. Race the Cape is an International Sailing Federation - Off Shore Special Regulations (OSR) Category 4 Race, generally sailed during daylight hours. There are both Spinnaker and Non-Spinnaker Divisions.

The Location: The Bras d'Or is a 450 square mile inland sea; connected to the Atlantic Ocean through natural channels, with deep salt water, virtually no fog, little tide influence, and few navigational hazards.



ILLEGAL DUMPING IN THE BRAS D'OR WATERSHED

By Jim Foulds

lere is a picture taken on May 21, 2014 of recent, illegal dumping in the Bras d'Or watershed. There is a fuel oil tank, a television set and waste building materials, and who knows what else - all leaching into the nearby Glen Brook, a major tributary of River Denys. This is on the Old Mill Road - Location: N 45° 52' 59.0"- W 61° 16' 4.9". How can we get people to stop doing this?

THE WAY FORWARD

by Pat Bates

any readers will have heard of the phrases "Collateral Damage" or "Unanticipated Consequences." Not every day jargon to be sure but these expressions suggest something in addition to anticipated outcomes. In a small business in a rural Cape Breton Community, collateral damage and/or unanticipated consequences appear to be a reality. Peter and Candice Christiano of Middle River, owners of Finewood Flooring & Lumber Ltd., present a case in point.

Immigrants to Cape Breton some hard workers and creators of thirty-five years ago from the U.S., the Christianos are entrepreneurs who match the ideal profile of new citizens: business-oriented.

economic gain in job creation and net contributors to the Nova Scotia economy. They could be considered a model immigrant

The Way Forward cont'd ...

couple in today's circumstances. They established a small business in Middle River, Cape Breton and have developed a good reputation in the manufacture of quality hardwood flooring. They have directly and indirectly created employment, seasonal and otherwise, for about twenty-five people and export over fifty-five percent of their flooring into the European market.

Ivany would probably say one hundred Christiano couples would give the Nova Scotia economy the boost it so badly needs.

So what's all the hype about? The Christianos could be at risk of closing their business largely because of the pyramid of obstruction in securing access to and necessary quantities of quality hardwood. It is difficult to know where to start describing the problem. For years, ordinary citizens were told we had large stands of hardwood we virtually could not even give away. Now, it seems that successive governments have made a series of commitments surrounding access to public lands, and, further, the use of some quality forest resources revolving around the principle of value added, i.e., the use of fibre. This observation leads to a wider set of policy issues which citizens appear to ignore rather than question.

Over the past five years, the provincial government has entered into a number of large transactions, admittedly in the interest of sustaining large industrial plants which have succumbed to market forces. While such action might have been unavoidable, decisions appear to have been taken without attaching a short term "Evaluative-Audit" process to each transaction.

The existence of a transparent short has been performed or reported term audit for such transactions could potentially uncover flawed business judgements and any unanticipated likelihood of collateral damage resulting from the deals. Since there is virtually no quick follow-up reporting on these types of transactions, citizens can only guess as to whether or not the desired results are being secured. For example, the province of Nova Scotia has made a major investment in the manufacture of windmills at the former Trenton Car Works plant in Trenton. The green energy business is substantially subsidized in a variety of ways. There appears to be no long-term cost assessment or evaluation conducted on where this business is going. Total experience in some other jurisdictions has not been glowing.

Again, by way of illustration, major investments have been made to rescue the paper mill operation at Point Tupper. Early anecdotal reports indicate that some level of viability has been reached. However, aligned with this transaction is the province's commitment to production of electricity via Biomass.

So what is the connection or relationship to the problems being experienced by the Christianos of Middle River? I don't have enough space allotted for this article to explain this conundrum. However, to apply the Cole's Notes version, it appears as follows. Some power and steam are produced by the Biomass plant for the Mill. The utilization and costs to the Mill are alleged to be favourable to the operation, or are they? Nova Scotia Power has various procurement arrangements to acquire wood for boiler fuel. Be mindful that as far as is known, no evaluative audit on these transactions. It appears that the reach of Mill operators and the Power Company extended into all areas of the fibre (wood) procurement, contract harvesting and haulage and control of species selection or availability.

What entanglement has been created between the N.S. government, the Mill, and Nova Scotia Power that frustrates a small manufacturer of flooring from getting ready access to hardwood resources, a resource to which he adds value since the wood is not burnt in some boiler as a conversion of fibre to fuel and then to steam? In fact, there is a growing suspicion in the community that the Biomass plant is of dubious value both in terms of efficiency, electricity and steam generated. Credible sources even question the use of high value hardwood as fuel.

Back to the question of Evaluative Audits. One cannot expect an unemployed person looking to government to provide a job to be very concerned about cost accounting. But governments cannot expend the same investment dollar twice, therefore investor emptor should apply to all projects, irrespective of size, where government dollars invested should be subject to an Evaluative Audit promptly after start-up. In fact, Nova Scotia's Department of Economic Development should be an advocate for the small business operator in this instance.

Clearcutting Degrades Healthy Maritime Forests June, 2014

By Bob Bancroft

orestry in Eastern Canada became a force in the 1700's. Land clearing for settlements and farms, shipbuilding and lumber exporting began making significant changes. Tall white pines were marked and reserved as masts for English sailing ships. In the 1800's sawmills used vast amounts of original Acadian forest hardwoods and softwoods. Some 300 years and repeated harvests later, those same sites are being swept clean for pulp, lumber and/or biomass. For centuries wood was burned in homes for heating and cooking. Lately biomass includes largescale cutting of forests and using their wood to produce heat and electricity. In 300 years, we've gone from masts to moonscapes, while industry and government leaders bafflegab about environmental sustainability. Like the cod fishery, the Acadian forest is over-exploited.

The industry-preferred, cheap harvest method is clearcutting. A clearcut can be defined as a site where essentially all trees have been removed in one operation, leaving a large, open area that no longer has the forests' protection from high temperatures and drying winds. The spread of clearcutting over eastern landscapes has drastic environmental consequences for soils, wildlife populations, waterways, climate and humans. Leaving thin ribbons of trees along waterways and occasional, see-through clumps of trees on the landscape does not maintain a healthy environment. Large companies using mis-leading names for clearcutting, such as "variable retention" and "seed tree release", show only window-dressing regard for the future. They ignore the following:

- 1) Clearcuts encourage short-lived and "open ground" suited seedlings of species like poplar, wire birch, fir and white spruce to take over. Sure, something grows back but not the same forest.
- 2) The resulting forest is even-aged, has fewer tree species and more vulnerability to insect and disease damage.
- 3) To be "industry" successful, new forests on clearcuts may require herbicides and softwood planting. This has been taxpayer-subsidized for decades.
- 4) Global warming may bring dry, windy climate change that kills shallow-rooted softwoods.
- 5) Clearcuts make soil nutrients vulnerable to erosion from wind and rain. Nutrients important for tree growth (like phosphates and calcium) are removed with the harvested wood, washed out of the soil or blown away.
- 6) During dry periods, forest soils can regulate flows by gradually releasing their water into brooks and rivers. Clearcut brooks flush like toilets after heavy rainfalls, drying up in summer with widened, eroded channels. That difference can mean life or death for salmon and trout, frogs and other aquatic life. Humans also need cool, clean water. Why do we compromise nature's ecological services?
- 7) Erosion from clearcuts washes silt into brooks and rivers, filling spaces between the rocks where aquatic life takes refuge. Silt also smothers trout and salmon eggs that are laid in autumn and over winter in gravel

bottoms. Laws to protect waterways and adjacent lands are politically and ecologically compromised, and sparsely enforced. Silt keeps flowing into brooks and onward to the sea

- 8) Exposed, hot, dry conditions on clearcuts kill off microscopic soil inhabitants that break down and recycle forest nutrients from dead wood, helping to build new forests.
- 9) Young clearcuts produce food that white-tailed deer and others can reach. But sprouts on a red maple stump do not have the nutritional value of a twig that grows from seed.
- 10) Many habitats essential for a wide variety of wild animals, plants and lichens formerly found in Acadian forests are missing in "forests" that follow clearcuts. Barred owls, for example, nest in a big tree with a large hole. Inhabitants displaced by clearcutting probably never find nearby "vacant" forests.
- 11) Biomass has become a commodity. Clearcuts are being "cleaned up", leaving even less for nature. Pulp companies normally cut softwood forests and mixed wood (hardwood and softwood) forests to make their products. Now they clearcut hardwood stands for biomass to lower their energy costs, often with taxpayer's subsidies. Burning forests to produce electricity at efficiency rates of of less than 30%? Is this wise use?
- 12) Signs proclaiming "100 Million Trees Planted" are testimony to the conversion of former healthy forests to single species, even-aged softwoods that resemble corn fields. Forest ecologist Bernd Heinrich calls plantations "permanent deforestation".

Clearcutting Degrades Healthy Maritime Forests cont'd ...

There are ways to harvest that allow nature to grow healthy new Acadian forests. Trees are removed using "partial harvest" methods that mimic natural gaps in the forest canopy, creating a more suitable environment for long-lived species of hardwoods and softwoods.

To be healthy, nature and wildlife need ecologically-healthy forest management on at least 60% of the land base. Acadian forests represent a diverse portfolio of stable ecological investments whose "accrued interest and capital" since the last ice age should not be plundered for quick profit. The current practice of clearcutting mixed Acadian forests will not sustain them.

The industry folks who fund university researchers insist that clearcutting the forest every few decades is no problem - it will magically re-appear. In New Brunswick and Nova Scotia, they aim to increase harvests over larger land bases and channel more of natures' energy into fewer tree species, ignoring the devastating ecological consequences this will have for wildlife and nature as a whole. Forestry professionals seem industry-led and single-minded about growing trees. Current industry demand transcends nature's ability to provide. Large pulp companies are licensed by governments to liquidate publicallyowned Crown lands. At the same time they offer fewer jobs and diminishing economic stability.

It's time to rehabilitate these forests before they deteriorate to scrub or heath. Once a forested country, Scotland now has only 3% of its land base in trees. Forestry planning needs to become more

in tune with nature's ways. The word "sustainable" needs to find the forest. Nova Scotia needs to enact legislation that prevents clear-cutting where healthy Acadian forests remain.

Are we not the caretakers? Do we have a land ethic? What will be left for future generations?

Annual Report -Bras d'Or Lake Biosphere Reserve



Jim Foulds, Chair, BLBRA Summer. 2014

The Bras d'Or Lake Biosphere Reserve is in its third year. There is an active group of volunteers who are involved in a variety of activities related to governance, networking, awareness building and projects related to the promotion of the natural history of the area and how we can live more sustainably. We do not have any paid staff and so most of the work is done on a volunteer basis or through small, short-term contracts. Here are some highlights of our work over the past year.

Education Resource Committee:

This group is working on a teacher/ student resource manual that will be both a hard copy, written document supplemented with a variety of on-line resources – to promote the natural history of the Biosphere Reserve within the context of a Grade 4 science curriculum in local schools.

Organizations Related to the Bras d'Or: We are one of seven local organizations that work on the stewardship of the Bras d'Or watershed. We meet four times a year to share updates and to discover how we can help each other. These meetings are a great, informal way of keeping up to date with each other.

Signage for the Biosphere: We contracted a local graphic designer to map out a signage master plan for the Biosphere. He came up with some great concepts surrounding "welcoming" signage, "wayfinding" signage and the creation of "portals" to the Biosphere. We are all quite excited about the power of this signage to promote the BR with tourists — both local and from away! Fundraising efforts are now underway to help implement this plan.

A Biosphere Trail: Since the heart of our biosphere is the Bras d'Or Lake and the people here have such an affinity with it, the idea of a trail that went around the lake has always been a positive, well supported goal to work toward. The example of the Bruce Trail in the Niagara Escarpment Biosphere Reserve has inspired this in great measure although, as we have discovered, there are many existing trails and many avid participants using them! With funding from a university research program, we have managed to hire a facilitator and hold a series of workshops around the biosphere to gauge people's interest and to gather information about trails that already

Annual Report - Bras d'Or Lake Biosphere Reserve cont'd ...

exist. A lot of information has been gathered and a final report is due soon.

Museum Display: Parks Canada has reached out to us as a partner and we now have a Memorandum of Understanding that describes our mutual goals and commits us to work together for common goals. One of these is to promote Alexander Graham Bell's interest in the environment of the Bras d'Or and to use that to mount a display in the Alexander Graham Bell National Historic Site in Baddeck that describes and promotes the UNESCO designation for the watershed. This will be a valuable public awareness piece for us with approximately 70,000 visitors passing through the museum annually!

DISCOVERING SECRETS OF SALMON SWIMMING WITHIN THE BRAS D'OR ECOSYSTEM

Bruce G. Hatcher,

Bras d'Or Institute for Ecosystem Research, Cape Breton University

When we terrestrial mammals gaze upon the 1,200km² sheet of water that is the Bras d'Or estuary, we see only the surface skin of 13km³ of brackish water, through which all manner of sea creatures swim and crawl and drift. Opaque to our vision save a rare, exciting glimpse of a surface feeding salmon or the frightening flicker of an eel sliding through a seagrass meadow,

these and hundreds of other mobile species respond to the patterns of environmental stimuli and the rythms of evolutionary adaptation in privacy. We are curious to know the secret lives of fish.

If the Bras d'Or is an inland sea, do anadromous animals such as Atlantic salmon have to leave it to feed in the big ocean beyond? Or can they complete their life cycles within the watershed ecosystem of rivers and deep estuary? What about cod or Striped bass? Do some of them comprise self-seeding populations within the Bras d'Or? Are herring coming back into the Bras d'Or since the commercial fishery stopped, but not spawning for some reason? How many silver eels (a catadromous species) leave the Bras d'Or to join their co-specifics from the Gulf of Saint Lawrence on their amazing spawning migration to the Sargasso Sea? Do they all leave together? Or do they trickle out as the Spirit of the Lakes moves them? How does the eel parasite affect their migration out of the estuary? These are but a few of the questions that could be answered if only we could track the movements of animals as they use the vast volume of the Bras d'Or ecosystem.

Over the last decade an international, multi-disciplinary program of research has expanded into Atlantic Canada that uses digital acoustic technologies to uniquely tag and regularly locate animals as small as Salmon smolt, and as large as a Leatherback turtles. The Ocean Tracking Network (www. OceanTrack.org) is a \$168.M investment in technology, people and fish that installs arrays of acoustic receivers on the seabed at strategic locations such as the

Cabot Strait, and thousands of unique sonic tags in or on marine animals such as salmon and seals. Every time a tagged animal moves through these arrays or listening gates, its position and the time are recorded. The Bras d'Or array has been under construction and testing for the past two years. It now consists of 28 VEMCO VR-2W receivers (www.VEMCO.com) distributed throughout the estuary at all of the important passages between the major habitats and the Atlantic Ocean.

A significant impediment to the array's operation is that the narrow, shallow channels through which fish must pass on their ways between the South and North basins of the Bras d'Or Lakes, between Whycogomagh Bay and the Saint Patrick's Channel, or between the estuary and the Atlantic Ocean are acoustically noisy. Turbulence in fast currents, stratification of fresh on salt water, suspended sediments and reflections from the seabed and shoreline structures all interfere with the reception of the faint signals from the tiny tags implanted in fish As a result, tag detection efficiency was sometimes as low as 50% in the Great Bras d'Or channel. This effectively invalidates the use of the array to test hypotheses that tagged fish of some species never leave the estuary.

Revisions to the array design were undertaken during April of 2012 with the assistance of a team from Dalhousie University (John Lindley, Fred & Kim Whoriskey), and Dale Webber of Amirix-VEMCO Ltd. (manufacturers of acoustic tags and receivers). The receiver lines were repositioned with several

Discovering Secrets of Salmon Swimming Within The Bras d'Or Ecosystem cont'd ...

new receivers in the wider, deeper portions of channels, increasing tag detection efficiency to better than 92%. Range testing is an ongoing process aimed at further improving this performance.

Last year, training in the practice of fish tagging was provided by Glenn Crossin of Dalhousie University (with the generous assistance of the Margaree Fish Hatchery, www.margareens.com). The first successful acoustic tagging and recapture of Atlantic Salmon in the Bras d'Or lakes was accomplished in May of that year. A total of 19 smolts (greater than 13cm length) were selected from those captured in the smolt wheel operated by Shelley Deny and her team from the Unam'ki Institute of Natural Resources (www.UINR.ca) in the lower reach of the Middle River. The catch rates were very low, so only a small number of the strongest specimens were chosen for the surgical insertion of VEMCO V8 acoustic tags in the visceral cavity. Of these, five (26% of those tags attempted) suffered tag-induced mortality within 2 hours of the surgery. Thus, a total of 14 tagged smolt were released back to the Middle River at the site of capture and not recovered. Nine of these tagged fish were subsequently detected down river, and one in the delta in Nyanza Bay up to 24th of May 2012 using a portable receiver in a boat, suggesting that another four died in the river subsequent to tagging and release.

Of these 10 smolts, 5 were subsequently detected by at least one of the three VR-2W receivers located in the line across the mouth of Nyanza Bay up until the 30th of and the data downloaded</x> May 2012 (when the data were last downloaded), and another three fish that were not detected in the river or delta were also detected at the mouth of the Bay. A All 8 of these fish were on the move (i.e. they were not detected constantly by just one receiver).

Thus, of the 14 fish tagged and released successfully, 8 (57%) made it at least as far as the mouth of the Bay into which their natal river flows. A natural mortality rate of 43% (i.e. 6 of 14 tagged fish) may reasonably be assumed to have occurred between the point of release and the mouth of the Bay. This mortality is in addition to the immediate, tag-induced mortalities (5 fish) described above, for a total mortality of rate of 58% (i.e. 11 of 19 fish) in the first Middle River smolt tagging experiment. If delayed, tag-induced morbidity leads to subsequent mortalities (e.g. due to reduced predator avoidance capability), then the true, natural mortality rate may be less than the 43% estimated above. Clearly, the transition of salmon from their freshwater nurseries in the headwaters of the Bras d'Or watershed to the estuary is a risky business! We must ensure that the research does not add significantly to the high rates of natural mortality experienced by Atlantic salmon. These initial results are being used to re-design the smolt tagging program for Spring of 2013.

Answers to the questions of where the tagged smolts went after they left Nyanza Bay, and how many of them exited the estuary into the surrounding ocean will be provided when the receivers in the Bras d'Or array are next recovered early in 2013. So stay tuned! More testing of the receiver array will be undertaken, especially in the Barra Strait and Little Narrows where turbulence is high and man-made structures complicate the acoustic environment. A program of tagging adult salmon after spawning (kelts) is also planned for this coming year.

It is possible that salmon tagged in the Bras d'Or will be detected as they move into the acoustic arrays spread throughout the Atlantic arena (e.g. they may be seen to pass through the Cabot Strait and Strait of Belle Isle on their way to the Labrador Sea). Similarly, salmon, striped bass, eel, cod, seals and even turtles tagged by other members of the OTN may be detected if they move into the Bras d'Or estuary.

Of course, measures of salmon migration and survival are but one, obvious use of the Bras d'Or acoustic array in the Ocean Tracking Network. It is a multi-user resource, and we encourage anyone interested in tagging animals in the Bras d'Or to contact us for collaborative research. As the array matures and its performance is better calibrated, we can start to compare the spatial distribution of tagged animals to the physical, chemical and biological patterns of this complex estuary as mapped from oceanographic observations and numerical models. So-called smart tags placed in large fish can record pressure (depth) and temperature between encounters with receivers, when these data are downloaded. Who knows? Perhaps we will be tagging Mola mola in the Bras d'Or a few years from now.

The project is truly a collaborative

Discovering Secrets of Salmon Swimming Within The Bras d'Or Ecosystem cont'd ...

effort, and would not be possible without the guidance and assistance of co-investigators in Dalhousie Univ., the UINR, and Amirix-VEMCO Ltd. Funding for the research is provided by the Canadian Foundation for Innovation (CFI) and the Natural Sciences and Engineering Research Council (NSERC).

POSSIBLE NAME CHANGES FOR THE BRAS D'OR LAKES

By Jim Carson

Thirty five years ago a delightful account of pioneer life in Cape Breton – a saga catered on the north-west corner of the Bras d'Or – was penned by a very active bilingual (Gaelic and English) octogenarian ((81) new writer, Mrs. Angus MacPhail, originally from Estmere, where the story took place. This book, 'Loch Bras d'Or' at the time attained considerable, widespread success.

Although the Bras d'Or is virtually land locked, it may and should be classified as an (ocean connected) inland sea, as it possesses most of the attributes of the great salty water bodies (oceans etc.) The marine life, teeming (more so than many parts of the larger bodies of water or seas) with virtually every variety of local ocean fish – shell as well as finned –also contains other species

of ocean life such as sea otters and seals.

Many local people over recent years have thoughtfully considered that a name change – from Bras d'Or Lake(s) to Loch Bras d'Or – would not only comprise a sensible, realistic and more geographically attuned accurate appellation, it could provide a boom for tourism growth in our area.

For a further initiative along this line: the three best known apostles of the Christian Church we know as Saints Peter, James and John. The three ancient Celtic patron saints of the largest divisions of the Britannic Isles have the names of St. Andrew, (Scotland) St. Patrick (Ireland) and St. George (Britain-before the arrival of the Anglo Saxons). Not much of a stretch would be needed to designate (some are already possessed with such) six of the larger areas of our 'Inland Sea to match the above named six saints.

- (i) St. Andrew's channel runs along the south side of Boularderie Island
- (ii) St. Patrick's channel extends from Baddeck Bay to Whycocomagh
- (iii) St. George's Channel was formerly considered to be a part of West Bay, and the name could easily be applied to the whole bay.
- (iv) From the canal, out to the main body of water we know as St. Peter Inlet - not too much of a difficulty to move or enlarge to St. Peter's Channel.
- (v) On the south side of East bay we have Ben Eoin (John's Mountain). East Bay could easily be changed to St. John's channel (at the foot of St. John's mountain)
- (vi) This leaves out only one of the above named saints. From Barra Strait (Grand Narrows) to the ocean juncture at new Campbellton (North

side of Boulardarie Island) we have the not too attractive designation 'Great Bras d'Or Gut'. Would not a change (the only major stretch of the six) to St. James Channel sound considerably better?

Thus we have accomplished six - in a few cases completely new - very attractive titles, for these well-known bodies of water; and naming the whole 440 square mile (1000 plus square kilometer) inland sea or chain of fiords, Loch Bras d'Or (from Bras d'Or Lakes) would as earlier mentioned, probably provide a significant boost to our tourism industry - as we would be holding much more closely to the geographic and geologic reality. Besides the new name and the spirit behind the name, would be more closely aligned or fitting in with our New Scotland (Nova Scotia) identification.



GRAND NARROWS WATERFRONT DEVELOPMENT SOCIETY

he Grand Narrows Waterfront Society is gearing up for what is sure to be another busy summer season. Over the winter months, upgrades to the south wharf were completed. Further upgrades for the Café are in the works with new equipment purchases and an expansion of Ferrymen's Hall. The GNWDS is currently involved in discussions regarding local trails initiatives and monitoring the feasibility of kayak lessons and tours. Operations at the Grand Narrows Waterfront in 2013 provided full and part-time employment for 10 local residents (including two summer students). We are looking to match that or possibly increase that number in 2014... it's all good! • Here's a look at what you will find at the Grand Narrows Waterfront this summer:

- Marina operations will continue to offer public washrooms, showers and laundry, as well as marine and RV sewage pump out. Propane exchange service was added in 2013 and will continue to be offered as a regular service. Ice is something every boater needs... and yes we'll have it. Seasonal & short term moorings and slips are available and our boat launch will be kept clean and ready for a busy season.
- The Wheelhouse Café will open up June 20th with expanded hours (10am-7pm). The crew there will continue to offer their very popular stone baked pizza, ice cream, coffee, baked goods,

sandwiches and soups. New menu items and daily specials will be added regularly with an emphasis on healthy eating... sorry, no burger and fries.

- Our first <u>Garden Workshop</u> was held on May 3. Topics covered included: Herb growing and preserving, gardening with heritage seeds and the benefits of eating local. The second workshop is scheduled for Aug. 23 with a focus on wild mushrooms.
- Our <u>Community Market</u> date is set for July 27.

It's in the works to bring back the Mobile Sailing Program again this year for one week starting July 28. This Sail N.S. program teaches sailing & water safety basics and gives our youth a taste of sailing on the Bras d'Or Lakes

- Race the Cape will be sailing through the Barra Strait on July 23. We will once again provide a barbeque and a great viewing spot for that event.
- Our annual Motor Sport Show featuring the Cape Breton Antique and Custom Car Club and the Volkswagen Touring Club will be held on Aug. 17. This event has grown every year and is a great family outing with live music, barbeque and our lottery draw.

As a non-profit volunteer run society, we are very proud of what we have accomplished. Like every community group we struggle to attract more active members and community volunteers. The dedicated few who give their time, work very hard and for that we are most grateful that they see the value in giving back to the community.

Hope to see you at the Grand Narrows Waterfront this summer.

Donnie Campbell Chairperson - GNWDS www.grandnarrowswaterfront.com

The Bras d'Or Stewardship Society is interested in contributions from our members. If you have something to contribute to the Newsletter or would like to work with the society's board, please let us know. The society is an all volunteer organization that welcomes input from individuals interested in promoting the conservation. protection and restoration of the Bras d'Or Lakes and its

watershed.

BOOK REVIEW:

Journeys Through Eastern Old-Growth Forests a Narrative Guide

by Jamie Simpson - Nimbus, 2014

amie Simpson's second book takes readers on a series of excursions to 17 old-growth forests that remain in New Brunswick, Nova Scotia and Prince Edward Island. The sites have varying, well-profiled Acadian forest attributes that Simpson neatly fits into a wider picture of ecologically-healthy forest functions. Sufficient directions are given for readers to visit these places. At face value, that's the book. Dig deeper and one finds ecological undertones that may well make this a forest classic.

Simpson's writing style seems simple and conversational. He applies science in such a manner that most folks will understand, but few will notice that it is science. A turn in a trail, a stroke of the paddle, or an encounter with one of nature's facets can be a launching pad for investigating aspects of the Acadian forest ecosystem. In keeping with Aldo Leopold's thought (I paraphrase) that the first rule of intelligent tinkering should be to save all the pieces, Simpson examines piece after piece, offering hints of position and function within nature's real estate. His presentation slips together a gradual accumulation of science into the forest forays that assemble as pieces of an ecological jigsaw puzzle.

The contrasts between old growth forests and degraded forest sites

and soils that remain after hundreds of years of excessive plundering by single-purpose companies are well documented. The stark realities of current clearcutting practices on forest landscapes are described in Chapter 5. Simpson has blunt assessments concerning the lack of political will and an absence of long-term foresight to halt this forest degradation. He aptly corners the jobs-versus-environment attitudes that are rampant politically. Simpson enlists provocative quotes from forest ecologists like Bernd Heinrich, who defines tree plantations as "permanent deforestation".

This book will interest people who like woodlands and sense that clearcuts are too drastic, but lack the scientific understanding to back up their hunch. Like the tobacco lobby, forest science has its share of

industry-funded academics who blur realities and pounce upon any who question the ecological ramifications of clearcutting. The forest sites left after private profiteering efforts in this book serve as stark contrast to Simpson's old growth journeys.

Journeys Through Eastern Old-Growth Forests should prompt woodland owners to consider the original forest composition on their property, and to begin using a forest ecosystem classification approach in their forest management. With this book Simpson makes a solid case that working with rather than overwhelming nature would bring better dividends to all species who depend on eastern forests.

Bob Bancroft

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

2014

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MEMBER FAMILY CONTRIBUTOR SUPPORTER LIFETIME MEMBER		\$15.00 \$25.00 \$50.00 \$100.00 \$500.00	Name Address	☐ Yes, I am in favour of conserving and restoring the Bras d'Or Lake and watershed through responsible stewardship.
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