



THE BLUE HERON

The Bras d'Or Stewardship Society

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

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This issue of the Blue Heron once again focuses on the forestry practices of the province of Nova Scotia as it pertains to clear cutting, the perpetual degradation of Nova Scotia's forest inventory and the misuse of trees to generate electricity by burning them in incinerators to produce steam to generate electricity. The only way to create focused awareness of the serial rape of Nova Scotia's forests is to continually make the public understand what the effects are of the unsustainable and ill conceived forest resource policy of the Nova Scotia's Department of Natural Resources where politics and economics rule.

The reprints of various articles serve to define the issues. It may very well be said that the tenor of the pieces is one sided, but there is rarely a credible effort to address

the issues by the government of the day. The strategy is to often side step the truth! Meanwhile, the clear cutting goes on and truck loads of woody biomass are sent to the 'forest crematoriums' to produce electricity which Emera has recently stated is not cost effective! The articles authored by Bob Bancroft and Dale Smith cut to the heart of the matter.

Also included in this issue of the Blue Heron are the report from the current BSS President's report presented at the annual general meeting, an article by Annamarie Hatcher on nesting birds in the Bras d'Or Lakes watershed and an updated article on the progress of the Hume's River Trail development.

We are living in times of great uncertainty. Not a day goes by without some crisis that unsettles the mind and creates tension and anxiety. The English author John Fowles described this phenomenon as the 'tensional nature' of reality. Politics and economics dominate at the macro level. Partisanship serves to divide and conquer on many interfacing levels. The pundits are proclaiming a growing global instability as the balance wheels of time and place appear to spin out of control. Climate change appears to be gaining the upper hand as exemplified by the horrific devastation as the fires of the forest torched Fort McMurray. The one focus where a sense of solace can be found is in the steadfastness

of "Mother Nature" which, though often unpredictable, provides for personal reflection, enjoyment and hopeful homeostasis. This past time can readily be found within the Bras d'Or Lakes watershed for all to enjoy. Our challenge is to keep it that way!

H.W. Fuller, Editor

This edition of the Blue Heron is dedicated to Dr. J.V. O'Brien for his long service as a stalwart BSS board member in his 80th year.

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



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NEWS ITEMS:

The Society AGM

The Annual General Meeting of the Society was held on April 25, 2016 at the St. Marks Masonic Hall in Baddeck. About 45 individuals gathered to participate in the meeting and hear the two guest speakers, Dan Christmas and Don George. Both speakers provided interesting presentations which are covered in the Society's AGM article by Jim Morrow reprinted from the Victoria Standard. Gratitude is deserved for the reporting efforts of Jim Morrow who has recently sold the Victoria Standard which has been the beacon of local Victoria County news for residents and non-residents.

World Oceans Day 2016

On the weekend of June 2-5, 2016 the second annual World Oceans Day was held in Iona. There were a variety of information booths and displays that represented organizations that had marine interests. There was not as big a crowd as on Oceans Day 2015, but the event was well worth attending and enjoyed by all participants. (www.Aros-Na-Mara.com)

"The World Oceans Day event in Iona, Nova Scotia June 2016, will explore what communities, institutions and residents around the Bras d'Or estuary can do to increase resilience in the face of global climate changes and economic pressures. Since increasing resiliency to these forces requires a solid understanding of the science of the ecosystems and the practice of management, this year's event will examine the roles that Research, Education and Institutions such as the proposed Aros na Mara Marine Science and Energy Centre can play in supporting community

resiliency."

Marine Protected Areas

The Department of Fisheries and Oceans is in the preliminary stages of assessing the potential designation of areas located on the Bras d'Or Lakes as possible sites for Marine Protected Area inclusion. Current work is focused on the attributes that would qualify a specific location to be a marine protected area based on criteria to be determined. The question yet to be answered is the legitimacy for declaring marine protected status within the Bras d'Or Lakes. Heretofore, marine protected area designation has been applied to locations in the great oceans not within a body of water such as the Bras d'Or Lakes.

CEPI Sustainability Conference

A conference on the Bras d'Or Lakes is scheduled for November 2016. This conference will address the Bras d'Or watershed and aspects of sustainability. This conference will be held over two days with one day at Membertou in Sydney and a second session in Baddeck at the Inverary Inn. Presentations will be made covering a variety of topics yet to be finalized. The dates are November 8th, 9th and 10th.

Race The Cape

The third consecutive annual "Race The Cape" sailing regatta will take place from July 18-24, 2016. There are five race segments starting in St. Peter's and ending at the Northern Yacht Club in North Sydney. Further information may be found at www.racethecape.ca.

Bras d'Or Watch

On July 16, 2016 the second annual Bras d'Or Watch event was held at six selected

sites around the Bras 'Or Lakes. The impetus here is to engage individuals in gaining a better understanding of the natural features of the environment from a scientific perspective. The areas to be focused on are water quality, plants, wildlife, fish species, microorganisms that dwell in the water and on the sea bottom. One could summarize by saying that the "Bras d'Or Watch" is a Bras d'Or Lakes Biosphere Reserve Association project focused to highlight the biodiversity that makes up a multifaceted ecosystem that often remains a mystery to the layman. (www.brasdorwatch.ca)

Bras d'Or Lakes Biosphere Reserve AGM

The Annual General Meeting of the BLBRA was held on June 16th at the Bonnie Brae Senior Citizens Club in St. Peter's. It coincided with the annual St. Peter's Seaside Lobsterfest. There was a short AGM business meeting at 7 p.m. followed by a meeting of the new 2016-2017 Board of Directors. We said a huge "Thank You" to Kata Seufert and Teresa MacNeil who are leaving the Board at this time and a warm welcome to Eileen Crosby, Candace Christiano, Stan Johnson and Paul MacNeil as new Board members. The 20 member Board elected a slate of Officers. They are: Bruce Hatcher, Chair; Jim MacDonald, Secretary; Don Crosby, Treasurer and Jim Foulds as Past Chair. (www.blbra.ca)

Whycobah First Nations Trout Farm

Aquaculture in the Bras d'Or Lakes is visible as one drives through Wycocomagh. There are presently 16 cages that together hold 340,000 trout. 140,000 of these are older fish while 200,000 are new. There is over one million dollars of equipment in this

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NEWS ITEMS:

News Items, cont'd ...

operation that was first sponsored by Coldwater Fisheries, an Ontario firm that faced economic hardship. Today the operation is owned by the Whycobah band. The fish will be processed in Little Narrows and marketed by Northern Aquaculture located in New Brunswick. Recently, the Nova Scotia Government announced new support for the aquaculture industry.

Bras d'Or Stewardship Society Chairman's Remarks

Annual General Meeting
April 23, 2016

First, I want to welcome you all to today's meeting. This is the 18th annual general meeting of the Society. There is something reassuring about the fact that the Bras d'Or Stewardship Society is still standing on its own two feet. Organizations such as ours come and go for numerous reasons. I would say that the two reasons the Society is still here is directly attributable to first the 'dedication' of its board members and second, the 'support' of a small group of people who donate to the Society consistently from year to year. Many thanks.

You who were at last year's meeting will remember the good words Pat Bates had for Charlie Denis, who had recently died. We still miss Charlie!

My intention is to keep my remarks short as we have two interesting speakers here today, Dan Christmas and Dan George. I believe what they have to say is more interesting than what I have to say!

The usual Chairman's presentation is to recap the year and the Society's activities. We may not seem as active as in years past, but the Society still has a role to play in a 'watch dog manner' with regards to events and issues that have an impact on the Bras d'Or Lakes and its watershed. We attempt to review issues and events over the year in the biannual Society's Blue Heron newsletter. There is a three ring binder on the table that holds all the printed newsletters from January 1998 thru January 2016; a good diverse topical review here.

A year ago it was decided at a Society board meeting that we should focus on an issue that has immediate and longer term impact within the Bras d'Or watershed. When the Society was first established in August 1997, the Society focused on issues such as water quality, sewage disposal and treatment, pollution, shoreline protection, the development of subdivisions, shell fish contamination as occurred with the infestation of the MSX parasite, and the hopeful adoption development guidelines in conjunction with municipal planning strategies.

Overtime new substantive issues have arisen such as global warming, the accretive rise in water levels, storm projections in terms of frequency and destruction and what can be done to educate the public. Today the Society supports the Bras d'Or Watch project which is a one day event in various locations around the Bras d'Or to introduce people interested in the biota and the general ecological components that are the heart and soul of the Bras d'Or Lakes ecosystem.

Currently, the issue that sticks in one's craw most vividly today is the overwhelming issue of the use of Nova Scotia's forests to generate electricity from what is considered to be a renewable resource that is now referred to as 'woody biomass'. We have all seen the truck loads of toothpick like wood flying by us on the 105.....skeletons of former forests.

The use of Nova Scotia's forests to generate electricity has become a hotly debated topic. Two years ago at our AGM, Bob Bancroft, noted Nova Scotia wildlife biologist, made a presentation regarding his personal wood lot experience as well as an overview of the current forestry practices of the Nova Scotia Department of Natural Resources.

Our board felt that the Society needed to highlight this issue in terms of forest sustainability and how the clear cutting of wood within the Bras d'Or watershed is a threat to the future environmental sustainability and the regeneration of healthy forests for future generations. Danny George will address this issue from his perspective as an individual who has made his living as a wood harvester. Few, if any of us here today can say we have made such commitment in this line of work!

So, we have provided excellent published articles in the Blue Heron to bring to the attention of our readers that there is a real long standing problem with how the Province of Nova Scotia manages our forest resources. The key word here is unsustainability in terms of the current strategy of those who rule and dominate the NS forest industry.

With this in mind, I will shift to another topic. This past year I have attended several CEPI meetings held at Eskasoni. This is an eclectic committee made up of diverse individuals representing specific entities. This committee is chaired by Dan Christmas, who is here to speak to us today about his views and visions for the Bras d'Or Lakes in terms of future sustainable economic development. Dan is a respected member of our First Nation community and a proven leader within its ranks. He is a consultant to the Membertou native community and Director of the Union of Nova Scotia Indians. He served as member of the Ivany

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Commission which I am proud to say my daughter, Susanna, was also a member of. Dan is currently working with a co-coordinator to hold a conference in November devoted to the future 'sustainability' of the Bras d'Or Lakes and its watershed.

The major point to be made is that there are still issues to be dealt with in the Bras d'Or watershed. We all share personal responsibility here. We know talk is cheap and action is often too late. You need organized groups and dedicated individuals to work together to bring attention to the public, those threats which are right out there in front of us. The Bras d'Or Stewardship Society, although a small entity, is a pretty tight organization and has had some real impact over our almost twenty year history. Hopefully, we can continue to do so.

Henry W. Fuller, Chairman

BURNING OF BIOMASS FOR FUEL IS A RACE TO CONSERVATION BOTTOM

by Dale Smith

There is an old saying about not being able to see the forest for the trees, in essence that details can obscure the big picture. In light of the debate that has swirled around forestry-related policies and practices for far too long in Nova Scotia, it might be useful to adapt this saying to emphasize the importance of first seeing, knowing and appreciating the tree as a basis for understanding the forest and for gaining insight into responsible and sustainable forest management.

Bob Bancroft's March 5 opinion piece paints a rather vivid picture of our province's forests as they would have greeted early European settlers and would have endured for



A forest trail in Nova Scotia's Kejimikujik National Park.

centuries before their arrival: tall, vibrant, thick and strong, shaded and cool, stable and self-regenerating, integral elements of healthy and vigorous natural systems, typically comprised of stands of trees having reached hundreds of years in age.

According to the Department of Natural Resources, old growth that was once a distinguishing characteristic of the Acadian Forest is now rare in Nova Scotia. In fact, scattered, remnant old-growth stands are estimated to occupy less than one per cent of the province's forests.

Clearly, Nova Scotia's forests have been altered dramatically and significantly in just a few centuries. And not for the better.

In the 1700s and well into the 1800s, during the age of wood, wind and sail and before the age of steam, the province's natural forest stock was the source of the masts and timbers that supported shipbuilding in coastal towns and villages. This, in turn, provided the vessels needed for fishing, coasting and international trade. These forests continued as the resource of a thriving logging and sawmilling industry through to the 20th century.

By the mid-1900s, however, the winds of economic change had found their way to Nova Scotia. As with all resource-based industries,

modernization and mechanization were taking hold. Whether fishing, farming or forestry, the mantra was becoming, "Go big, or at least go bigger, or go home."

Viewed through a forestry lens, these changing times saw the pulp and paper industry emerge into a position of dominance. Forestry operations across the province increasingly revolved around efforts to feed three major mills and the conversation changed. Romanticized stories of life in remote logging camps, of working with horses in the woods and of the excitement and perils of river drives were relegated to the stuff of history books and folklore.

The new vocabulary came to include wood fibre, insecticide and herbicide spraying, clear-cutting, feller-bunchers, whole tree harvesting, scarification, stand conversion, annual allowable cut, overharvesting and, most recently, biomass. Through these years, the inherent value of Nova Scotia's forests as a natural capital asset has continued to decline, while the debate has raged on, changing only to reflect the particular issues of the day.

The province's denigrated forest asset continues to be reduced to pulp for production of paper and

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related products and now is being burned on an industrial scale to produce energy.

Fuels used in the burning of biomass include not only so-called wood waste, such as slash left following forestry operations in the woods and sawdust and bark from mill sites, but also reportedly, and disturbingly, whole trees taken from healthy forest stands. Surely this is the ultimate race to the bottom. If this finish line is crossed, there will be no winners. Everyone will have lost.

When discussing biomass issues on News 95.7's Rick Howe Show, Premier Stephen McNeil was challenged by the claim that some of our best forest is being burned for this purpose. The premier's surprisingly candid and illuminating response was, in part, "My common sense tells me that; the reports I'm getting (don't) tell me that."

This is both concerning and hopeful. Concerning because the implication is that government may not be getting objective and accurate information at the political level. Hopeful because it suggests the premier senses briefing materials may be filtered and massaged to reflect industry and departmental purposes and biases. Sometimes complex and contentious issues can best be understood and appreciated by breaking underlying problems down to the basics.

In the case of a forest, consider a tree. The trees of a forest are not just resources or commodities to be burned for energy, reduced to pulp for paper or sawn into lumber for building. They are parts of complex natural systems that have many functions.

Cradle to Cradle, a 2002 book by William McDonough and Michael Braungart, makes the case for achieving sustainability through the design of industrial processes to emulate natural system. It rather clearly and succinctly describes the

many functions of a tree:

"It provides food for animals, insects and microorganisms. It enriches the ecosystem, sequestering carbon, producing oxygen, cleaning air and water, and creating and stabilizing soil. Among its roots and branches and on its leaves, it harbours a diverse array of flora and fauna, all of which depend on it and on one another for the functions and flows that support life. And when the tree dies, it returns to the soil, releasing, as it decomposes, minerals that will fuel healthy new growth in the same place".

The images evoked here contrast sharply with photographs of clear-cuts and of sites denuded of organic matter that have appeared recently in this newspaper and other media.

The 21st-century demands responsible land and resource stewardship, biodiversity conservation and integrated approaches to ecosystem-based planning and management, together with open and credible processes for public and stakeholder consultation and decision-making. Unfortunately, Nova Scotia is not there yet.

It can only be hoped the premier's apparent skepticism about the appropriateness and accuracy of advice his government is receiving in favour of current forestry policies and practices is in fact real — and that he and his government will be moved to ensure steps are taken to effect positive change toward a forest planning and management regime that is science-based, transparent and accountable. It is long past time to push the reset button.

(Dale Smith is a land use planner with interests in parks and protected areas, outdoor recreation, nature tourism and sustainable community development. Reprinted from the Halifax Chronicle Herald, OPINIONS July 9, 2016)

Destruction of Nova Scotia Woodlands

by Bob Bancroft

Clear-cutting in Nova Scotia continues, despite all evidence of its destructiveness.

Centuries ago, Maritime forests loomed over freshwater shores; tall, vibrant, thick and strong. Early European settlers grumbled about spending dismal days in forests with sunlight cut off by thick overhead canopies of leaves and needles.

Seeds from trees and ground cover plants could take root and grow in that shade. Young trees waited in the shadows for decades until an elder fell nearby. When sunlight penetrated the forest floor, a race began between young trees to fill the gap. Trees could live for 200-450 years. Green forest canopies kept forest soils moist and air temperatures cool, even on hot summer days.

Soils

Since the ice age over 10,000 years ago, rich organic soil layers gradually accumulated as dead plant and tree material showered down onto the ground below. That material was recycled by nature's fungi, bacteria and other "decomposers" into soil, then new growth.

The roots of living plants stabilized soils and held their organic nutrients, while the shade and coolness provided by the trees prevented these soils from drying out and blowing away.

Solar panels with roots

Trees lead very complicated lives, communicating to each other underground and sometimes keeping each other alive. They possess living solar panels called leaves or needles to catch the sun's energy, and roots attached to the ground that gather nutrients, minerals, air and water from soils.

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Logging machines tear up this low-lying clear-cut, leaving deep ruts where groundwater collects.

Harvest techniques

To paraphrase Dr. Wilfrid Creighton, a former deputy minister of Lands and Forests, “the quickest way to harvest apples off a tree is to cut it down. However, this may not be the wisest.” His Lands and Forests Department transitioned into Natural Resources, a provincial department that now cannot or will not sensibly define a clear cut. Whatever they call it, removing most of the trees from too large a forested area changes the ground rules for new tree growth.

Conditions of moisture and cool shade are replaced by sudden exposures to sun, wind and direct rain. When soils dry out, their organic layers loosen up. Stored nutrients and compounds like carbon exit by wind and rain. Streams with water levels that once rose and fell gradually, after heavy rains, begin to flush like toilets. Bank erosion becomes rampant.

With the exception of balsam fir, most original tree species that commonly grew in forest shade are unsuited for new, exposed-ground conditions. Instead, open ground presents an opportunity for invasive plants like glossy buckthorn, as well as grow-fast, die-fast tree and plant species that take root on open land after disturbances such as fire.

Fires release nutrients back into soils. When trees are trucked away after a harvest, soils tend to become impoverished. Cutting down all the solar panels doesn't make energy, productivity or common sense. More gentle ways exist to remove valuable trees from woodland while still maintaining the character and canopy of the entire forest. Creating small gaps in the forest can imitate fallen trees.

The Menominee Indian tribe in northern Wisconsin have harvested the forest for 150 years. Forest structure, species and age classes remain intact, and support healthy wildlife populations.

By actions alone, Nova Scotia has no long-term forest vision. While words are spun, 20-40 year old forests disappear with poor economic and job returns for the ecologic losses that result.

Protected wilderness areas should be connected with ecologically-healthy working forests if wildlife populations are to survive.

Public sentiment

More than 40 per cent of the operable forest in Nova Scotia has been clear-cut in the last 25 years. Many Nova Scotians understand that clear-cutting and other large-scale

methods of forest flattening cause drastic environmental changes. Nature, when severely wounded, takes much time to heal.

A Nova Forest Alliance public opinion poll published in September 2000 interviewed 643 urban and rural residents in central Nova Scotia and found that 87 per cent believed clear-cutting should be permitted only in certain cases or banned altogether.

Eighty-four per cent wanted the provincial government to introduce regulations to control clear-cutting; only 15 per cent believed clear-cutting of public lands was acceptable. Eighty-five per cent thought the most important objective of forest management should be environmental protection.

In 2008-09, a voluntary planning committee, at the bidding of the provincial government, held public consultations about forests and published the results. The overall conclusion was: “Across Nova Scotia, a resounding call for change has been voiced. Current natural resource practices for all uses and all users are not sustainable.”

“The economy is a wholly-owned subsidiary of the environment.” it said. But the status quo promoted by the forest industry prevailed. Science-backed recommendations that mirrored the public desire for positive changes were ignored.

Nova Scotia's forests are overcut. Since 2010 we've added the harvesting of hardwood forests for cheap biomass, to be burned to produce electricity at efficiency rates of about 21.5 per cent or less. Forest biomass burning has contributed to forest flattening in Nova Scotia and beyond.

Politicians and the forest industry

Politicians are elected by voters. But politicians don't listen to voters with respect to managing forests.

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Politicians listen instead to forest industries that promise jobs as they busily transform forests into cheap fibre and biomass on private and public (Crown) lands, for private profits.

Unprotected public forest lands are being degraded by a feeding frenzy of biomass and pulp miners. Wildlife and ecologically healthy forests are disappearing quickly. Over the past decade governments have passed out hundreds of millions of taxpayer dollars in subsidies to pulp companies that can't compete financially in declining world markets.

The Department of Natural Resources won't disclose all details of those agreements, the current state of our forests or certain documents that would clearly condemn clear-cutting, such as a soils study they commissioned with taxpayer dollars. Those voluntary planning public consultation sessions began under a provincial Conservative regime. The NDP government continued the process with a forests panel, then allowed the forest industry to sabotage its credibility.

The current provincial Liberal government has hired forestry industry herbicides and clear-cutters to be senior forest managers and policy makers in the Department of Natural Resources. Not one of the three main political parties have reined in this taxpayer-funded, nature-destroying cheap wood rush. Government has the foxes guarding the chicken coop. Who exactly are our politicians working for?

Bob Bancroft is a biologist, woodland owner and president of Nature Nova Scotia. He led a forests panel established by the provincial government in 2009-10. (Reprinted from Halifax Chronicle Herald March 5, 2016)

Looking after the Bras d'Or

Stewardship Society takes aim at forestry practices

by Jim Morrow

The 18th annual general meeting of the Bras d'Or Stewardship Society was held at St. Mark's Masonic Hall in Baddeck on April 23rd. Interim Chairman, Henry Fuller said the Society "has a role to play in a 'watch dog' manner with regards to events and issues that have an impact on the Bras d'Or Lake and its watershed."

This year the AGM heard from Dan George a forestry contractor with over 30 years of experience who has been the bane of the forestry industry by recognizing forestry practices are not sustainable and are controlled by industry, not by the health or economic viability of the forest resource. Mr. George believes the Province of Nova Scotia abrogated its responsibility in the forestry sector in 1958 by allowing Stora Kopperburg, then setting up the Port Hawkesbury pulp mill, to pay \$1 a cord roadside for wood, which was the price set in 1929. The company had offered to pay \$3.50 a cord.

"The price was set too low from the start. Once the contractors expenses were added on it was not economically feasible from the get go," Mr. George said.

The emphasis on pulp wood also was in no small part responsible for the closing of small community based saw mills.

The last and most recent blow to the sustainability of the forest resource is the use of biomass to generate electricity.

"Forestry products have now been priced to accommodate the lowest end use," Mr. George commented.

"The province is practicing the kind of forestry it is being told to practice and is paying public money to private interests [in the process]."

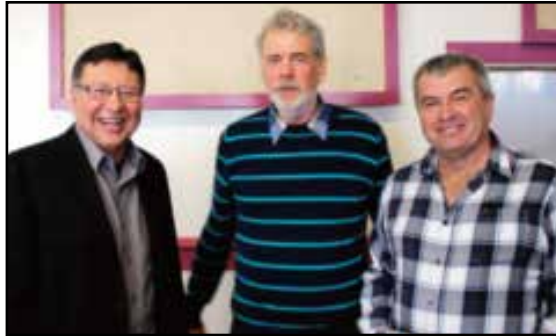
He said that the definition of clearcut has been rewritten to accommodate the industry's needs.

As to where the state of the forest will end up Mr. George felt was up to the people of Nova Scotia who have to recognize the value and potential of its resources and

price them accordingly.

The second speaker at the AGM was Dan Christmas, Chair of the Collaborative Environmental Planning Initiative (CEPI).

Mr. Christmas, who gave a background on CEPI, remarked that it is a unique organization in that all four levels of government (five Unama'ki



Chiefs, five Cape Breton Municipalities, four Nova Scotia Deputy Ministers and three federal Regional Director Generals) all signed the Bras d'Or Charter in 2005.

CEPI's vision statement reads: "To lead a unique collaboration of partners that incorporate both traditional Mi'kmaq and western perspectives in order to foster a healthy and productive Bras d'Or Lakes Watershed ecosystem."

CEPI's work has included a State of the Environment report in 2006; a Traditional Ecological Knowledge Workshop; Collaborative Salmon Initiative (CSI)-CEPI dialogue on Plamu/Atlantic Salmon in Cape Breton; published a Development Standards Handbook; a Marine Environment Water Quality Background Report; The Spirit of the Lakes Speaks - A Way Forward (2011); developed a Sewage Pump Out Stations strategy; and have participated in a Barachois/Coastal Ponds Inventory and Assessment Project.

Mr. Christmas and CEPI are also holding a conference in November in Baddeck and Wagmatcook to address the economic and demographic decline and the urgent need to create economic growth.

The Mi'kmaq concept of Netukulimk (shared commitment and sustainable development) will be the beginning of developing a new vision or a new framework of sustainable development for the Lakes and include how sustainability can be achieved in forestry, agriculture; aquaculture, mining, energy and tourism.

The conference will be inviting over 150 participants and is being planned for November 8, 9 and 10.

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

2016

BRAS D'OR STEWARDSHIP SOCIETY

MEMBER \$15.00
 FAMILY \$25.00
 CONTRIBUTOR \$50.00
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 LIFETIME MEMBER \$500.00

Yes, I am in favour of conserving and restoring the
 Bras d'Or Lake and watershed through
 responsible stewardship.

Name _____

Address _____

Phone _____

e-mail _____

Fax _____

*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

Humes River Wilderness Trail

Trail Association Moving Forward



The Humes River Flows fast over its rocky bed. The Humes River Trail which wanders through the river's watershed is in the Bras d'Or Lakes Biosphere Reserve and is showing great potential for development

Special

The Biosphere Northeast Trails Association (BNTA) was established to create a network of hiking trails in southern Victoria County. The organization made a presentation to Victoria County Council on April 12th.

Jon Saul, speaking for the BNTA said, "At present there is a strong interest in more hiking infrastructure."

BNTA's first project is the creation of a trail network from Wagmatcook to MacPherson Brook through the Humes River Wilderness Area. Efforts over the coming year will concentrate on the eastern end of this network, including a trail to the 25-foot MacNaughton Brook waterfall, and two looping wilderness paths to waterfalls along First and Second Branch Humes River. In all, the total trail length will be 10.75 km.

Forty percent of Victoria County is comprised of protected areas. Having such a large proportion of intact habitats is a major asset: we have an abundance of hardwood forests, wetlands, waterfalls, scenic vistas, and trout-filled rivers. This could become the County's brand but attracting people to the County to enjoy the benefits of so much protected land will require improved trail infrastructure.

Trails are an excellent way to encourage outdoor activity and connect with nature and the surrounding landscape. In a 2015 Survey of Victoria County residents, 69% of the 200 randomly sampled respondents said they would increase their participation in physical activity with more trails and pathways. A 1999 study of Nova Scotia trail users reported 39% sought mental/physical health benefits, 16% a wilderness experience, 15% nature appreciation/

study, and 10% wildlife sightings.

The Humes River wilderness trail network is part of a much longer hiking trail proposed by the Bras d'Or Lake Biosphere Reserve Association. The Bras d'Or Lake watershed was designated in 2011 as a UNESCO Biosphere Reserve. Biospheres build on the vision of a green and sustainable society.

In the past year, BNTA:

- Submitted a trail concept proposal to the Nova Scotia Government's Department of Environment (DOE). Environment staff indicated support in principle for the Humes River Trail Proposal.
- Submitted a 17-page development plan/ information package to DOE to fulfill their hiking trail development policy.
- Held three community meetings in Whycomagh, Wagmatcook and Baddeck on June 25th and June 26th, 2015 to allow for public input into the proposed trail.
- Submitted a funding application to the Atlantic Canada Opportunities Agency (ACOA) to prepare a trail development plan. ACOA agreed to fund 75% of the cost of this plan with BNTA funding the remaining 25%.
- Hired Cobequid Trail Consulting (CTC) to layout the proposed eastern section of the trail. CTC's Concept and Construction Plan for the Humes River Trail was forwarded to DOE in late December, 2015. CTC recommended a budget of \$179,000 to construct the eastern section of the Humes River Trail.
- Submitted funding applications to the Off Highway Vehicle Fund (OHVF), Atlantic Canada Opportunities Agency (ACOA) and MEC. Our goal is to carry out the majority of trail construction in 2016.

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Birds are Breeding in the Ponds of the Bras d'Or

by Dr. Annamarie Hatcher

Now that Cape Breton spring is dribbling in, have you noticed more birds doing more things in more places? April is the time when birds are evident in many habitats of the Bras d'Or Lake Biosphere, arriving back from their winter homes and joining the year-round residents to work on the production of the next generation. In the Mi'kmaq calendar, April is Pnatmuiku's or 'birds laying eggs time' and it is at this time of year that the barrachois ponds of the Bras d'Or lakes play an important role in kick-starting the next generation of many species.



Young American black duck and parent on Bras d'Or Lake.

The barrachois ponds, partially enclosed bodies of water rimmed by sandy spits and barrier beaches, are scenic coastal features of the Bras d'Or lakes. These ponds (in Mi'kmaq: pitu'we'k) have been culturally and biologically significant for over 10,000 years for L'nu (Mi'kmaq). Over the last 300 years they have been called tarns by the Scottish settlers, barrachois by the Acadian French and coastal ponds in English. The materials composing many of the barrachois barriers were originally deposited at the bottom of a shallow 'Windsor sea' which covered parts of Cape Breton about 300 to 360 million years ago, during the Carboniferous period. Currently over 450 barrachois ponds exist, ranging in size from less than 0.05 to over 78 hectares and comprising some 12% of the shoreline of the estuary. They provide a safe haven for the early life stages of many species both above and below the water.

One of the birds taking advantage of the Bras d'Or barrachois ponds for breeding and nurturing young lives is the American black duck (Mi'kmaq: apji'jkmuj). This species was once the most abundant dabbling duck in eastern North America but the current population is about one half of what it was in the 1950's. Dabbling ducks are the ones that nibble on bottom

plants and animals with their rear ends pointing skyward.

The population decline has been related to several things including over-harvesting and loss of critical habitat. Another factor that may come into play is related to the promiscuous relationship of many American black ducks with another species, the Mallard (Mi'kmaq: Ku'es). Wherever the two species are in close proximity, the majority of young are hybrids with intermediate characteristics. The Bras d'Or barrachois ponds are habitats where the two species can naturally coexist with enough space between them to avoid the temptation to mix the two gene pools.

During the breeding season the adult American black ducks stay near their mates, sleeping and dining together. The female builds a nest by hollowing out a depression on the protected grounds of the barrier beach and lining it with grass and other plant material. As she lays the white or greenish eggs (usually seven to twelve) she adds down that she plucks from her own body to cover the eggs. The female incubates the eggs and the male defends the territory. The pair stay together for the breeding season and sometimes for many breeding seasons after. The eggs all hatch near the same time and the female leads

the fuzzy little ducklings to areas in the barrachois pond where there is abundant plant material, insects and animals such as mussels for them to eat. She stays close to them for seven to eight weeks until their first flight feathers appear. Then she lets them fend for themselves, and she retires to a secluded spot to moult. She stays in hiding for about 10 days until her new feathers grow in and she can fly again. There are many suitable secluded spots around the barrachois ponds for a 'girl to get some privacy'.

As the eggs are hatching, the male loses interest in his growing family and meets up with the other local males in an open water area in the barrachois pond or the larger Bras d'Or lakes. When they are all together, the males moult, losing last year's feathers and growing a whole new crop. They can't fly for about ten days while their new feathers develop, so they dive to avoid predators. After this bachelor's existence, the males meet up with their young families in the fall. The females join them later and many of the newly reunited families will migrate to areas with more consistent winter food supplies. Some stay in Cape Breton and may spend the winter in the city's waterways such as Wentworth Park. Some travel farther afield where the food is healthier and more appealing. The American black duck has been around for a very long time and was an important food source for early Mi'kmaq around the Bras d'Or lakes. Preserved skeletons of American black ducks have been found dating from the Pleistocene, at least 11,000 years ago.

As you wander out beside the shores of the Bras d'Or lakes on warm spring days, avoid walking on the beaches and sand spits where birds lay their eggs in ground depressions. Think about the rocks and pebbles that were formed on the bottom of a shallow sea millions of years ago and which now shape the nursery areas of the Bras d'Or. Watch the birds that have come back to the sheltered habitat of the barrachois ponds every year for thousands of years to lay their eggs and nurture their young. Enjoy the Bras d'Or Lake Biosphere in early spring!

Dr. Annamarie Hatcher is an adjunct professor at Unama'ki College, Cape Breton University and a board member of the Bras d'Or Lake Biosphere Reserve Association. Photographs are courtesy of Allan MacMillan and the Bras d'Or Institute, Cape Breton University.