



# THE BLUE HERON

The Bras d'Or Stewardship Society

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

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On June 9, 2009, Nova Scotia elected a new majority NDP government. This was a first for the province as the NDP party had never formed a "majority" government in Nova Scotia's long political history. Given this fact, this neophyte NDP majority government has yet to be put to the test regarding its environmental platform for the future stewardship of Nova Scotia's environment. We are hopeful that this NDP government will be fearless and forthright in its approach to environmental issues as the long term cost not to adopt sound environmental policies is one we all will bear.

It was mentioned in the January 2009 Blue Heron that precarious economic conditions such as we are now experiencing raise havoc with financial contributions to non profit and charitable entities. Since January 2009, charitable philanthropy

has contracted markedly making it tougher for volunteer organizations to carry on their valuable work. Those non-profit organizations that have high on-going operating costs must retrench through creative thought to maintain their stature.

Small organizations such as the Bras d'Or Stewardship Society that operate with an all volunteer board and no staff or office expenses can ride out the economic turmoil, keeping off the soft ice of economic collapse.

Planning ahead is always a challenge. In the fall of 2009, the Society's board will spend some time reassessing The Bras d'Or Stewardship Society's future. The question is where do we go from here? We have been at it for twelve years as we try to create a responsible volunteer entity filling the need for a locally based organization to serve the needs of fostering responsible stewardship for The Bras d'Or Lakes and its watershed.

The Blue Heron reflects the Society's commitment to fulfill our mandate.

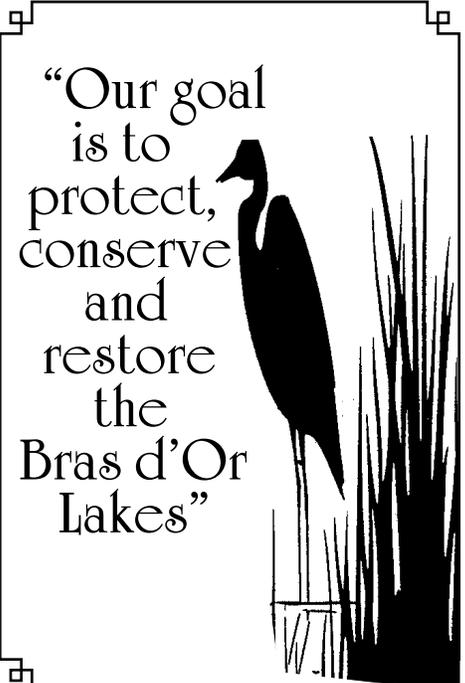
The contents of this current issue are wide ranging, reflecting the numerous initiatives that may or may not be topics of daily conversation, but represent current realities that must be dealt with on an on-going basis. The fate of the UNESCO Bras d'Or Lakes Biosphere Reserve designation initiative is currently at the top of the list. We trust that you find the information provided in The Blue Heron both interesting and sufficiently challenging continuing to support our efforts.

## NOTICE

**THE SEMI- ANNUAL GENERAL MEETING OF THE SOCIETY WILL BE HELD AT THE BADDECK COMMUNITY HALL ON SATURDAY, AUGUST 15, 2009 AT 2:00 P.M. ALL MEMBERS ARE INVITED TO ATTEND AS WELL AS INTERESTED CITIZENS WHO ARE CONCERNED WITH THE FUTURE STEWARDSHIP OF THE BRAS D'OR LAKES.**

### In This Issue

	Page
News Items	2
Coastal Management Is A Cost Effective Way To Prepare For Climate Change	3
Proposed Land Use Standards...	4
Excerpt Sent Out From the Bras d'Or Lakes Biosphere Reserve Association	5
Update on Bras d'Or Ecosystem	7
Stewardship Chairman Statement	8
Spruce Bark Beetle	10
Biosphere Resereve Opponents	
A No-show	11



## NEWS ITEMS:

### Society AGM:

The Society held its Annual General Meeting on March 21, 2009 at the Alexander Graham Bell Museum. Close to thirty people attended this event. Pat Bates reviewed the Society's activities for the year ending December 31, 2008 (read his report).

Bob Bancroft provided an illustrated account of outlandish forestry tree cutting practices on a neighbor's land that ruined much of Bob's property due to extreme erosion and accompanying siltation that flooded his pond. To date, Bob Bancroft has received no satisfaction from the Nova Scotia's Dept. of Natural Resource for the extensive damage incurred. His photos were poignant and startling. One showed an abandoned tree harvester leaking hydraulic fluid onto the ground!

Recently Global Forest Canada Watch "released a report indicating that Nova Scotia lost 12% of its forest in 17 years, roughly equal to the area of Victoria and Inverness Counties." The Forest Products Association of Nova Scotia has denounced Global Forest Canada Watch's findings!

### Bras d'Or Lakes Biosphere AGM:

On May 22, 2009 the Annual General Meeting of the Bras d'Or Lakes Biosphere Initiative was held in Whycomagh. The current status of the committee's work to have the Bras d'Or Lakes designated a UNESCO Biosphere Reserve is detailed in Lynn Baechler's article in this newsletter. Lynn is a board member of both The Bras d'Or Stewardship Society and the Biosphere Committee. An article from the Inverness Oran discussing

the AGM has also been included in this newsletter.

### Spruce Bark Beetle:

The infestation of the spruce bark beetle (read the insert) is decimating over mature spruce trees throughout Cape Breton. The infestation is made highly visible by the dead trees that stand out being fully denuded. If you put on your sun glasses, the spruce bark beetle ravaged spruce trees take on a heightened appearance. These dead trees are not just an eyesore, but a serious fire hazard. Should a fire get started amongst a grove of dead spruce trees, it will spread rapidly. A strong wind would cause a severe unforgiving forest fire. The Mabou Highland hiking trails have been closed because of the spruce budworm devastation.

### Collaborative Planning:

A document has been presented to all four Cape Breton municipalities which is the culmination of a joint effort by various groups comprising the collaborative environmental planning initiative. The document proposes development guidelines for buffer zones between new construction and waterways that would include not just the shores of the Bras d'Or Lakes, but also contiguous to rivers and streams. The document should assist in future municipal economic development planning, but first must be adopted in order to be a legitimate guideline. Pat Bates has provided an overview of the collaborative planning document as part of this newsletter.

### Student Summer Employment 2009:

The Society once again has been successful in obtaining a

summer student employment grant. Simon Silliboy, a CBU student, will be working with the Eskasoni Fish and Wildlife Commission. Shelley Denny will provide oversight for research on wetlands and the study of a virus which is affecting Bras d'Or Lakes' eels. We wish Simon all the success from his summer student employment opportunity that focuses on the biology and ecology of components of the Bras d'Or watershed.

### Boat Pump Out Stations:

It was brought to the attention of the Society on July 3, 2009 that at least three of the facilities that offer sewage and waste water pump outs for watercraft were not in operation. The reasons for this situation were not defined, but it is disturbing that pump out capability is not on stream given that the Bras d'Or Lakes have been designated a no dumping zone!

### Summer Semi-Annual Meeting:

On August 15, 2009 the Society will hold its summer in the Baddeck Community Hall next to the Baddeck Fire Station and Library. This is a chance for seasonal residents and the general public to learn of the Society's activities. At this meeting Jamie Simpson will be the speaker. Jaime works for the Ecology Action Center in Halifax. He holds a Master of Science in Forestry from the University of New Brunswick. His book, "Restoring the Acadian Forest: A Guide to Forest Stewardship for Woodlot Owners in the Maritimes" was recently published.

...cont'd on page 3

## NEWS ITEMS:

### First Nations Newsletter: UNIR MARTEN

In January 2006, The Blue Heron enclosed the second newsletter published by the Unima'ki Institute of Natural Resources. We are pleased to include Volume 6, Issue 1 celebrating the Institutes ten year history. The UNIR Marten details First Nation activities with regards to the importance of native beliefs, research and respect concerning the environment.

### GeoConnections Partnership:

The Bras d'Or Institute for Ecosystem Research ([www.bdoi.cbu.ca](http://www.bdoi.cbu.ca)) at Cape Breton University has received \$145,000.00 in funding through a partnership agreement with Natural Resources Canada's Geoconnections mandate. Bruce Hatcher, academic head of the Bras d'Or Institute for Ecosystem Research has provided an overview of this project with regards to the project goals, objectives and partnership funding in this newsletter.



## COASTAL MANAGEMENT IS A COST EFFECTIVE WAY TO PREPARE FOR CLIMATE CHANGE.

Jennifer Graham  
Coastal Coordinator  
Ecology Action Centre

There is no longer much debate – our climate is changing and we are already experiencing climate change impacts in Nova Scotia, such as changes in precipitation patterns, accelerated erosion rates, and rising sea levels. There is growing scientific consensus that earlier predictions about the rate of Arctic ice cap melting and subsequent sea level rise are too conservative. Our coastal areas are on the front lines of climate change, especially since beaches, dunes, wetlands offshore sandbars and other coastal features offer important protective buffers for inshore areas. In these uncertain times, the efforts of groups like the Bras d'Or Stewardship Society to build coalitions, encourage private land stewardship, acquire and protect ecologically significant lands, and promote better land use planning are more important than ever.

Good coastal management can help us prepare for climate change, and it can also save us money. In a recent study, the U.S.-based National Institute of Building Sciences calculates that for every dollar spent on mitigating climate change damage, society saves \$4 in recovery costs. We can prepare with a few key investments, all adapted from an Opinion Piece which appeared in the Chronicle Herald on June 25th, 2009.

1. Identify and fill information gaps so that climate change can be

incorporated into decision-making: We need high-definition flood and coastal maps for every municipality, showing the current and future risks to property, infrastructure and coastal ecosystems. Areas like the Bras d'Or Lakes are potential examples of how climate impact maps could be used to support better coastal planning. Nova Scotia's Climate Change Action Plan says that coastal mapping and climate change modeling is a priority – yet doesn't identify any clear timelines to accomplish this. This is a good time to remind elected officials that to make good decisions, we need the right tools, and that we should invest in important research now.

2. Require risk-based land-use planning: Land-use planning can safeguard property and lives, and minimize the cost of repairing damaged infrastructure. We may have to create no-build zones in hazardous or flood-prone areas instead of continuing to issue permits for new developments in unsuitable areas. All municipalities in Nova Scotia are currently developing Integrated Community Sustainability Plans, and residents of the County and Town of Lunenburg can participate in public meetings, planning area committees, and other forums to support good land use planning in coastal areas.

3. Design infrastructure and building code standards to meet future risk: The most appropriate infrastructure will protect existing property and infrastructure from damages, while also maintaining and restoring natural shoreline features like irregular, uneven coastlines, eroding drumlins and headlands, sand bars, groundwater recharge areas, and vegetated buffer zones that maintain shoreline stability. Coastal and lakefront property owners can go to [www.livingbywater.ca](http://www.livingbywater.ca) for

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tips on how to work with coastal processes when living on the coast. Bird Studies Canada also recently published a stewardship guide for coastal landowners. You can obtain a copy by emailing [nsplowers@gmail.com](mailto:nsplowers@gmail.com)

**4. Strengthen coastal ecosystems as part of a risk-reduction strategy:**

Coastal ecosystems, like salt marshes, beaches, dunes, and barrier islands, have enormous protective value and are essential to any climate-change adaptation strategy. Nova Scotia Sustainable Coastal Development Strategy is a critical tool for ensuring the sustainability of our coasts and coastal communities over the long term. Public policy should reflect (and protect) values important to residents of Nova Scotia. In the coming year, citizens will have the opportunity to attend public hearings and make written submissions on a report called "State of the Coasts" describing in detail what's going on in coastal Nova Scotia, as well as the provincial Water Resources Management Strategy. Please participate to preserve Nova Scotia's coastal future!

In addition to the above, there are other interesting coastal happenings. The province of Nova Scotia is preparing a no-net-loss of wetlands policy as it committed to under the Environmental Goals and Sustainable Prosperity Act. EAC is developing a discussion paper on coastal and water policy, as well as a policy brief. We want to articulate some of our own ideas on how to ensure sustainable coastal areas and water resources, as well as to create a resource for individuals and groups planning to make submissions during public consultations. In late summer and early fall, we hope to travel to different communities to get

feedback on our proposed coastal and water policies. Stay tuned. We also publish Coastlines, a monthly natural history column about coastal and water issues that appears in many community newspapers around the province. Coastlines and all other EAC publications are available online at [www.ecologyaction.ca/coastal-issues](http://www.ecologyaction.ca/coastal-issues).

Last but not least, as Coastal Coordinator at the Ecology Action Centre – and an active member of the Coastal Coalition of Nova Scotia – I have the great privilege of working closely with people and organizations that are true "coastal champions" on a range of different issues. Thank you for all the ideas and inspiration. I am always available to answer questions about Nova Scotia coastal policy and what's happening where in coastal Nova Scotia.



**PROPOSED LAND  
USE STANDARDS  
ENCOURAGE  
BOTH NEW  
DEVELOPMENT AND  
ENVIRONMENTAL  
PRACTICES:**

**A** Report outlining best management practices for Land Use Development Standards in the Bras d'Or Lake Watershed was completed in 2008. A major piece of work, it was authorized and paid for on a cooperative basis by the Collaborative Environmental Planning Initiative (CEPI) and funded by CEPI, the Bras d'Or Stewardship and Service Nova Scotia. Conducted by Environmental Design and

Management Limited (E.D.M.) of Halifax, the Report highlights sound actions on such activities as determination of suitability of Lands for Development; establishing water course buffers, planning for wastewater management Districts and Low Impact Development.

While this work provides analysis and recommendations for best Land Use Practices within the Watershed Land surrounding the Bras d'Or Lake, they could be applicable in almost any jurisdiction.

The reasoning for having the report prepared is based on evidence collected in the CEPI process of developing a management plan for the Bras d'Or Lake. Essentially the plan looks at those particular elements that have or can have an impact on the Lake. This can include, for example, such items as water quality, salt and fresh fisheries, forestry, land-based development, invasive species, and climate change. Various team members from the CEPI organization undertake work on the specific items of importance and the combined results will be included in a finalized management plan. Actions on the recommendations arising from the specific task reports are initiated promptly.

The Bras d'Or Lake has a shoreline perimeter of about 1230 kilometers. Ninety (90) percent of the lands abutting the Lake are privately owned; 8 percent are lands occupied by First Nation reserves and a several smaller areas are identified as Crown lands. One conclusion from this acknowledgement is that since much of the adverse impact on the Lake results from land-base activity, establishment of good land development regulations and practices can help prevent drainage of sedimentation, contaminants and other materials from draining into

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the Lake.

Existing evidence is that the quality of the water at the center of the Lake is quite good. However, water quality near shoreline tends to suffer from land-base run-off due in part to flooding, steep slopes, erosion, improper excavation practices and dumping. Our failure to retain rather than destroy vegetation for buffering to help control flow of sedimentation as well as erosion control should be corrected. Municipal governments have the authority under the Municipal Government Act to establish regulations and guidelines to prevent much of the damage from occurring. The Report describes in detail how new measures can be defined and implemented under new zoning and Land Use By-Laws. It also sets out the various steps municipal governments can take to establish new land development framework which can assist rather than discourage development.

The Report has now been presented to the five local municipal councils and a special team is presenting the Report to the appropriate First Nation officials. All councils were open to receiving the Report and it is expected that the respective planning divisions will be requested to review the Report and make recommendations for further consideration and implementation.

Pat Bates, Chairman

**The Bras d'Or Stewardship Society depends on its membership base. We hope that you will consider renewing your membership and will recommend membership to friends.**

## **The following excerpts were taken from a May 2009 public message sent out from the Bras d'Or Lake Biosphere Reserve Association (BLBRA):**

"The BLBRA met the February 28, 2009 deadline for submitting its application to the Canadian Commission for UNESCO. The 257 page document is the product of several years work by more than twenty volunteers supported by data provided through various public agencies. The document is organized in response to specific questions presented by the UNESCO Man and the Biosphere program. It describes a broad range of natural, social, economic and cultural aspects of the Bras d'Or Lake region. An initial response from the Canadian Commission for UNESCO gave positive feedback and some excellent suggestions where additional information would be helpful. We are currently making those additions."

At the BLBRA Board of Directors meeting on April 23, 2009 it was decided to withdraw the application for the 2009 cycle for UNESCO review.

"The procedure for an application requires it to be endorsed by entities that own or manage the core and buffer areas within the proposed Biosphere Reserve (BR) region. Two of those entities are the Nova Scotia Departments of Natural Resources and of Environment. These endorsements must be provided before the Canadian Commission approves the document for final review by UNESCO in Paris. We opted not to ask for those endorsements until we had evidence that all of the region's local governments supported the application. Letters of support came from the organization representing five First Nations Chiefs and two Municipal Councils: from various

federal and provincial agencies whose jurisdictions relate to the lake region and from numerous local lake-related organizations. We did not ask for the Province's endorsement because we did not receive support from Inverness and Richmond Municipal Councils. Consequently we withdrew the application for this year."

On May 21, 2009 the third Annual General Meeting (AGM) of the BLBRA was held at the Whycocomagh Education Centre. It featured a panel discussion on the theme "A Bras d'Or Lake Biosphere Reserve: Should We Bother". The panel included Henry Fuller, representing the Bras d'Or Stewardship Society, Kari Easthouse (NewPage - Port Hawkesbury), Dr. Bruce Hatcher (Bras d'Or Institute, Cape Breton University) and Tom Johnson (Unama'ki Institute of Natural Resources). The discussion was chaired by an outside, objective person, Steve Sutherland. Approximately 50 people attended this meeting.

Each of these presenters described the benefits of a biosphere designation from their perspective. Among the many interesting arguments in favor of the designation Kari Easthouse, spoke about the many certifications required in the forestry industry to do business in the modern world. Consumers want to know forestry practices are being carried out in an environmentally approved manner and that every effort is being made to make the forest industry and the forests sustainable into the future. From a human resources perspective, good people want to

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come and work for the company in Cape Breton because New Page is "trying to harvest wood sustainably on the Crown lands they control". Therefore working inside a Biosphere Reserve is seen as a positive, not negative venture.

Dr. Bruce Hatcher, talked about the uniqueness of this place, and the increased potential for research on the natural ecosystems in the Lake and watershed if it is designated under the Man and the Biosphere (MAB) program. The designation itself will not bring research money, but it should help to leverage funding.

Unfortunately, representatives of the mining industry and the Strait-Highlands Regional Development Agency, known to be against the designation for a variety of reasons, declined an invitation to participate on the panel. It seems they are concerned about perception, fearing that economic activity (specifically new mining initiatives) would be restricted because of the designation of the area (the Bras d'Or watershed) as a Biosphere Reserve. They also believe there is not enough public awareness within the watershed for this initiative.

**The view of the mining industry is contrary to those of the forest industry. There will be no new rules and/or regulations associated with the designation of the Bras d'Or Lake watershed under the UN Man and the Biosphere Program; the commissioning of new mines and quarries will be no more difficult tomorrow than it has been in the recent past. Rigorous environmental standards are in place to protect residents and natural ecosystems. Today environmental monitoring and accountability to the community are part of the mining process.**

**With or without a UN Biosphere Designation, the benefits and challenges of mining projects will be the same. Discussion with the panel included a clarification of the terms "core areas" and "buffer areas".**

Core areas in a Biosphere Reserve refer to areas that are ALREADY protected. The BLBRA has identified nineteen separate core areas within the Bras d'Or Lake watershed that are already protected by provincial legislation. They include Wilderness Areas (i.e. Middle River Wilderness Area - 53.47 km<sup>2</sup>), Nature Reserves (i.e. Bornish Hill Nature Reserve - 8.33 km<sup>2</sup>), Provincial Parks (i.e. Whycomagh Provincial Park - 1.92 km<sup>2</sup>), Game Sanctuaries and Land Trusts (i.e. Nature Conservancy of Canada - 0.72 km<sup>2</sup>) and Protected Beaches (i.e. Malcolm Cove Protected Beach (0.005 km<sup>2</sup>). The core areas total 77.12 km<sup>2</sup> in a land based watershed of 2,474 km<sup>2</sup>. The total size of the Bras d'Or Lake watershed is 3,566 km<sup>2</sup> including the lake itself. Therefore, the core areas constitute 2.16% of the entire watershed or 3.1% of the land based portion of the watershed.

Buffer areas in the Bras d'Or model do not surround each of the core areas, but instead include 614.6 km<sup>2</sup> of federal, provincial (Crown), municipal, and private lands within the Bras d'Or Lake watershed in which sustainable activities are ALREADY taking place, long term ecological monitoring is taking place or land is designated a historical sites. The large areas (560.18 km<sup>2</sup>) of Category 2 (C2) Crown land fall under Integrated Resource Management (IRM). According to the Nova Scotia Department of Natural Resources, "IRM is a planning and decision making process that coordinates resource use so that long term sustainable benefits are optimized and conflicts among users are minimized. IRM

includes planning for minerals, forests, recreation, wilderness, energy, wildlife and parks". Human activity therefore is NOT DENIED in "buffer" areas: it is an integral part of what a biosphere reserve is. Resource activities such as forestry and mining, and recreation and wilderness activities are coordinated to maximize benefits and minimize conflicts.

The NewPage Port Hawkesbury lands, either set aside, or IRM managed lands account for 44.78 km<sup>2</sup> of the watershed, while non-designated parks, ecological monitoring sites, historic sites and municipal lands account for 9.64 km<sup>2</sup>. Together the "buffer" areas account for 24.8% of the land based portion of the Bras d'Or Lake watershed.

There is NO plan by the Bras d'Or Lake Biosphere Reserve Association to increase either "Core" or "Buffer" areas within the watershed.

All the work to date has been carried out by dedicated volunteers on a budget of less than \$6000.00! Most of the funds have been used for the development and distribution of information brochures to all permanent and seasonal residents in the watershed, and for meeting the costs of a Submission Document editor.

**The BLBRA is presently making edits to the Submission Document. It has had meetings with representatives of the mining industry and hopes to work closely with the regional economic development agencies to reflect the importance of all resource based industries to sustainable communities. A brief summary document will be prepared. The summary will target individuals, businesses and municipal leaders in the watershed, rather than the UNESCO audience. Hopefully,**

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**concerned and supporting citizens will find the summary easier to understand than the Submission Document.**

Anyone interested in finding out more about the initiative to have the Bras d'Or Lake and watershed designated a Biosphere reserve under the UN Man and the Biosphere Program should go to the BLBRA website at [www.blbra.ca](http://www.blbra.ca)

Information on Biosphere Reserves can be found at the following sites:  
[www.unesco.ca](http://www.unesco.ca)

[www.biospherecanada.ca](http://www.biospherecanada.ca)

Submitted by Lynn Baechler, BLBRA Board member representing the Bras d'Or Stewardship Society

***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.***

## **UPDATE ON THE DEVELOPMENT OF A BRAS D'OR ECOSYSTEM-BASED MANAGEMENT TOOL THROUGH GEOCONNECTIONS AND IMAGINE CANADA**

The Bras d'Or estuary is one of Canada's charismatic ecosystems: an inland sea of 1200km<sup>2</sup> area surrounded by 2400km<sup>2</sup> of diverse, lightly populated and scenic watershed. As such, its well-being is a priority for the human communities of residence, vocation and interest that embrace it. The health of the estuary is vitally linked to that of the adjacent land because everything that happens in the watershed is connected by flowing water to the estuary, where water can reside for as long as two years before being exchanged with the surrounding Northwest Atlantic Ocean. The resources of the estuary itself are lightly used by humans at present, but were much more intensely exploited in the past. The terrestrial resources continue to be exploited by the primary and service industries, as well as for permanent and seasonal residential and recreational uses.

Sound planning and management of sustainable human development within this complex milieu demands integrated, ecosystem-based approaches that utilize the best available data and information to support planners, decision-makers, and the human beneficiaries of the ecosystem's goods and services. Much of the required data and information on ecosystem structure and function, as well as the pattern and pace of land and water use,

are specific to particular areas of the Bras d'Or. Properly compiled and portrayed, maps and movies of this information can be combined with numerical models to depict and predict the outcomes of various past and future management interventions. The results may then be revealed as changes in indicators of the status of key resources and the overall health of the ecosystems associated with different planning scenarios.

The goal of a multi-agency, interdisciplinary project recently funded by GeoConnections Canada is to develop a science-based planning and reporting tool for ecosystem-based management of human activities directly affecting the health of this iconic estuary. An interacting set of GIS layers and numerical models of ecosystem processes will use existing and new data products to depict and predict the pattern and pace of change in key metrics of ecosystem health in response to human activities in the watershed. Research outputs are configured for a graphical user interface that reports progress against planning goals, and permits evaluation of alternate futures. Anticipated outcomes include more integrated policy for land-seascape management, enhanced quality and transparency of ecosystem-based management, and measurable improvements in the health of Canada's inland sea. End-users of the research products are the twenty-plus agencies sharing responsibility for the health of the Bras d'Or ecosystem and its people: i.e. the members of the Collaborative Environmental Planning Initiative (CEPI).

The GeoConnections project links the Bras d'Or to four other pilot sites across Canada in which people are developing and using methods of integrated

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land-seascape management for sustainable development within IMAGINE Canada. The Integrated Management And Geospatial Information Network for the Environment (IMAGINE) is a policy research network facilitated by Environment Canada (EC), funded by Natural Resources Canada (NRCan) and guided by the International Institute for Sustainable Development (IISD). Natural Resources Canada is contributing \$145,450 in cash to the Bras d'Or project, while Cape Breton University and 18 other institutional partners in the government, private and academic sectors are contributing a further \$185,750 in cash and kind, for a total investment of \$331,200. over 18 months during the first phase of the project.

The Bras d'Or s Institute for Ecosystem Research at CBU will lead the work with the other CEPI members to develop the Bras d'Or ecosystem based management tool. The project will enable the Institute to be a more significant contributor to the goals and objectives of the CEPI. It will link the University and the CEPI to an emerging, global community of best practice of integrated land-seascape management. Expert practitioners in remote sensing, geographic information and geospatial data analysis will be hired, and students will receive on the job training. The Project Initiation meeting was held from November 26-28 on the CBU campus. Representatives of the CEPI, IMAGINE Canada and IISD staff met with academics to discuss the short and long term research activities that will yield a body of best practices for ecosystem-based planning in the Bras d'Or.

Bruce Hatcher

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## **THE BRAS D'OR STEWARDSHIP SOCIETY CHAIRMAN'S STATEMENT - TWELFTH ANNUAL GENERAL MEETING MARCH 21, 2009**

It might be fitting to begin our comments on the fiscal year now ended by acknowledging that the scope and universe of thinking, planning statements and actions on the Environment have expanded exponentially. And somewhere within this widening context, our Stewardship Society strives to understand its impact and value while addressing its efforts to meeting changing circumstances.

Our Society over the past two years has been addressed by knowledgeable people on the subject of climate change and global warming pursuant to the work done by Al Gore exhibited in the book "Inconvenient Truth." Further, we have had insightful lecture by Mr. Fred Baechler on the important subject of water management in the Bras d'Or as we learn of the risks from sea level rise, aggravated by the increasing pace of ice melt in the North. During the interim, we have experienced the decline of the oyster fishery and more recently predator attacks on the eel population in the Bras d'Or Lake. Admittedly, eels may not be a dietary staple of many Cape Bretoners, but it is for some. More particularly, the attack is evidence that the Lake and its marine life are exposed to the invasive species and viruses that are attacking marine life in other Canadian rivers and lakes. Further, we are reminded

that the herring fishery in the Lake has been closed for over ten years due largely to overfishing and current indications are that the small but important lobster fishery is in decline. The reasons for the latter are not yet clear.

The Stewardship Society supports and encourages the monitoring and research conducted into the state of the various fisheries by the Department of Fisheries and Oceans and organizations such as the Eskasoni Fish and Wildlife Commission (EFWC) and the Unama'ki Institute of Natural Resources (UINR).

On occasion we will receive reports or opinions from residents that the decline in the various fisheries is caused by development around the Lake leading to the discharging of untreated sewage, contaminants and soil erosion. While some of those activities likely continue, indications are that improved practices and regulations over the past decade have resulted in a marked decrease in these types of occurrences.

However, there exists another conundrum and it is the need for a balanced approach for assessing new development opportunities and projects. Too often the debate between environmentalists and project developers and proponents becomes acrimonious and generates more heat than light. Within our jurisdiction, this creates unnecessary risks to possible opportunities for new and future development. We need to be concerned with the current economic statistics for Cape Breton of which we are all acquainted – essentially, a decline in population, continued outmigration of younger workers and an aging workforce.

The challenge is to create a

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balanced approach to project assessment wherein we can be more inviting and encouraging to new business projects while assisting the proponents to design, publicize and implement appropriate environmental safeguards. We believe this is not only possible, but is already being done. For example, municipal governments of the four municipalities abounding the Lake have over the past eight (8) years cleaned up and shut down landfill sites, installed and upgraded primary and secondary sewage treatment plants, installed new water distribution systems and enacted some land development guidelines and zoning regulations. More could be done but there has been an encouraging start.

In the meantime, the Stewardship Society submitted a number of constructive recommendations to have Nova Scotia Department of Environment when consideration was being given to approval of the Georgia Pacific Melford site. Most of those suggestions were adopted by the firm at that time. The project proceeded, the jobs were saved and the firm runs a responsible operation protecting the environment while contributing significant economic benefits.

In another potential example, two years ago, the Merrex Gold Inc. contacted the Stewardship Society interested in sharing their plans for a base metal mining operation in the Little Narrows area. Stewardship personnel, together with people from the Unama'ki Institute met with company officials who at that time exhibited a modern and responsible approach to mine development. The project has not yet proceeded due to market and financing considerations. If and when a decision to proceed

is taken, there is every indication environmental safety will be part of the plan.

Four years ago, officials for the Stewardship Society were asked to meet with personnel for an on-land oil drilling firm planning exploration drilling in the watershed area. Public information sessions were held; the company demonstrated an intention to employ environment safeguards with its drilling activity and proceeded without incident.

Our purpose in sharing these examples is to state that the Bras d'Or Stewardship Society has advanced the cause of protection of the Bras d'Or Lake without hindering or obstructing meaningful development projects from going ahead. There has been a fear expressed that over protectionism is scaring away traditional industries when the Island of Cape Breton badly needs new development. There is no reason at all why so-called traditional industrial and business development can't proceed within the watershed, but traditional methods have to give way to newer technologies and processes if business and environmental viability are likely to be achieved.

Perception is often the reality and if the fear exists in the minds of some municipal leaders and business people that protection of the environment is an obstruction to developments of the economy and new business activity, then the Bras d'Or Stewardship Society may not have done a very good job in the areas of education and communication.

This could be our new challenge!

Officials for the Society continue to work on issues now impacting or with potential to have future impact on the health of the Lake.

Climate change and the resultant rise in sea level, as mentioned earlier, warrant some continuous monitoring. Some situations have occurred where lakeside properties have experienced significant erosion. In one instance, tidal activity on an Aboriginal burial site at Malagawatch has exposed grave sites. Efforts are underway by concerned communities to protect these special grounds.

The Society continues to actively support efforts to secure Biosphere Reserve Designation for the Bras d'Or Lake, confident in the value of such designation as a recognition of the Lake as a special space and its potential to afford to special visitors (afford what? Not complete) as well as assist in growth of tourism. Officials for the Society have endorsed efforts to establish a Nova Scotia Coastal Management Strategy. This exercise is focused on the importance of coastal communities and threats from sea level rise.

In addition to the foregoing commentary, I want to identify the following as other examples of progress made and/or actions taken to secure future safeguards for the Lake.

- Continuing efforts towards presentation of submission to municipal councils on Study, now completed, recommending new land development standards.
- Hired and assigned university student to work with and support the Whycocomagh Eco-Center (summer position).
- Society officials maintaining

*...cont'd on page 10*

updates on challenges confronting the health of the Lake's Oyster fishery. In addition, briefing has been received on affect of virus attack on eel population.

- Prepared and mailed two (2) Society Newsletters, included newsletter for Unama'ki Institute of Natural Resources.
- Society continues its work within the Collaborative Environmental Planning Initiative (CEPI) with emphasis on the State of the Bras d'Or Report and development of a Communication Plan.

Again, I would like to remind Society members and those interested, all of the work carried out by the Society is conducted by volunteer members of the Board and committed non-Board members. The Society does not have paid staff. In addition, because of their commitment to the work of the Society, Board members frequently absorb costs of phone calls, postage, photocopying, etc.

In conclusion I ask members to encourage all friends and neighbors interested in preserving the health of the Bras d'Or Lake to join and support the work of the Society. Individual membership is only \$15.00. Membership rates remain the same as established in 1997.

Finally, I want to sincerely thank all those supporting our on going work today. The Society and I want to say it is my pleasure to serve you.

Respectfully submitted,

Pat Bates, Chairperson, The Bras d'Or Stewardship Society

# Spruce Beetle (Dendroctonus rufipennis Kirby)

## Introduction

The spruce beetle (*Dendroctonus rufipennis*Kirby) is native to Nova Scotia and attacks mature and overmature spruce. Once established in a forest stand it can become very destructive. Its preferred host in Nova Scotia is white spruce, but all spruce species can be attacked and killed. The spruce beetle has a two year life cycle. Adults overwinter in blow-downs and in the bases of standing trees.



Spruce beetle adult. (4-6 mm)

## Host

Farm abandonment in the first half of this century has resulted in many even-aged stands of white spruce throughout the province.

White spruce is a relatively short lived tree, maturing at about 50 years of age. When mature, it starts to become vulnerable to attack by insects and disease. Rot also begins to set in and the trees are more susceptible to blowing down. These two factors (tree stress and blow-downs) are critical for spruce beetle populations to build and spread.

## Damage

The adult and larva stages of the spruce beetle cause the damage. Spruce beetles begin to attack trees in late May and continue through June. Adults bore through the bark down to the outer surface of the sapwood where they mate and lay their eggs. After hatching, the larvae feed together for a short time then form individual feeding tunnels or "galleries" that eventually girdle the tree. Adult beetles leave the tree in the fall of the year to seek overwintering sites in the bases of standing trees and blowdowns.

When beetle populations are low, the trees are able to resist attack. When the beetle population reaches epidemic levels, they "mass attack" spruce trees (white, red, and occasionally black) in an area. Eventually they will overcome any resistance the tree produces, girdle the stem with galleries and kill it.



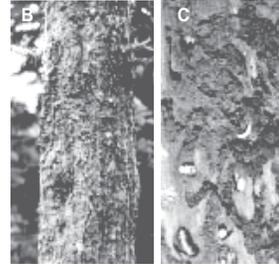
## Detection

Look for:  
Holes in the bark on the main stem of spruce trees. These holes are about 1mm in diameter and may have sap dripping from them.

Blobs of dried sap or pitch (commonly called pitch tubes) partially covering the holes. If the tree is weak from numerous attacks, little or no sap may be visible and the entrance holes will be easy to see.

Reddish-brown boring dust (like sawdust) visible on the bark and at the base of trees. Foliage on spruce trees turn yellow then reddish-brown by late summer. This usually occurs 1 or 2 years after the tree is first successfully attacked.

Outer bark of trees flaked off or missing from the standing tree. This is caused by woodpecker feeding activity as they search for adults and larvae.



A) Spruce beetle damage, Cape George, N.S.

B) Pitch tubes and oozing sap on white spruce.

C) Feeding galleries.

D) Close up of pitch tube.

## Control

Carry out regular inspections of your wood lot and harvest spruce trees before they become overmature. Older trees are not able to produce the extra sap necessary to "pitch out" the invading adult beetle.

Blowdowns should be removed from the area as soon as possible. Widely scattered blowdowns (more than 2 per ha) are a prime source of outbreaks.

Minimize high stumps, cull logs and large diameter slash in harvesting operations.

Sanitation logging is the most effective method for treating areas under heavy attack. Harvesting the infested and mature/overmature trees can reduce the spread of beetle populations to neighbouring woodlots. Because white spruce usually grows in even-aged stands, all the trees in the stand should be harvested. To help stop the spread of beetles to other areas, wood from harvested sites should be trucked and processed promptly. All bark and slabs should be destroyed.

Logs may be stored by placing them in water so that beetles still within the logs are killed.

## References:

Ministry of Forests, Province of British Columbia, 1980 Spruce Beetle Management Seminar and Workshop; proceedings in abstract. Pest Management Report Number 1.

Schmid, J.M. and Frye, R.H., 1977 Spruce beetle in the Rockies. USDA Forest Service, General Technical Report RM-49

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Information Leaflet No. IPM - 4



	June	July	August	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May
Year 1	Adults emerge and attack trees.											
	Eggs laid											
	Eggs hatch											
	Larvae feed											
Year 2						Larvae overwinter						
	Larvae resume feeding											
						Larvae pupate						
	Adults emerge to lay eggs					Adults overwinter						

# Biosphere Reserve Opponents A No-show In Whyccomagh

Figure SEQ Figure \\* ARABIC 1 Kari Easthouse, NewPage Port Hawkesbury; Henry Fuller, Bras d'Or Stewardship Society; Bruce Hatcher, Cape Breton University; and Tom Johnson of the Eskasoni Fish and Wildlife Commission.



Despite a public invitation, opponents to the proposed Bras d'Or Lake Biosphere Reserve application to the United Nations Educational, Scientific and Cultural Organization (UNESCO) were a no-show at a recent public meeting and AGM on Thursday, May 21st at the Whyccomagh Education Centre. The Mining Association of Nova Scotia, the Strait Highlands Regional Development Authority (SH-RDA) and Inverness County Council have all recently opposed the UNESCO proposal from the Bras d'Or Lake Biosphere Reserve Association. Richmond County, which had initially supported the proposal, withdrew its support recently as well. Consequently, the application to UNESCO has been put on hold while the Biosphere Reserve Association works to gain broader community support. Dr. Teresa MacNeil, chair of the Bras d'Or Lake Biosphere Reserve Association welcomed the crowd of 40 or more people to the meeting before turning the microphone over to fellow Biosphere Reserve Association member Jim Foulds for a progress update. Foulds said the past year has seen both good news and bad for the UNESCO proposal (part of UNESCO's Man and Biosphere Program). The group was relieved to complete its detailed 257-page document (sent to UNESCO) and encouraged by the 39 pages of "extremely constructive comments" it received in return. It was also boosted by 20 or more official letters of support, the support of all five Cape Breton Mi'kmaq communities, support from Victoria County, Cape Breton Regional Municipality, Department of Fisheries and Oceans and Environment Canada. Despite that support, Foulds said the Biosphere volunteers have been discouraged by the opposition previously noted above. In Inverness County, the most recent vote on the issue at council resulted

in a 3-3 vote tie which was considered a vote against the proposal. Warden Duart MacAulay, councillor Ned MacDonald and councillor Susan Mallette supported the proposal while councillors Daniel Boudreau, Gloria LeBlanc and Ed MacDonald opposed it. Although the Bras d'Or Lake Biosphere Reserve Association recently decided to withdraw its UNESCO application, it hopes it can win over opponents prior to submitting an improved application sometime again next year. CBC Radio Information Morning Cape Breton host Steve Sutherland served as moderator for the session and panel discussion which followed the update from Jim Foulds. Sutherland initiated the discussion with the question: Bras d'Or Lake Biosphere Reserve – should we bother? The panellists included Kari Easthouse, NewPage Port Hawkesbury; Henry Fuller, Bras d'Or Stewardship Society; Bruce Hatcher, Cape Breton University; and Tom Johnson of the Eskasoni Fish and Wildlife Commission. Panellist Kari Easthouse told the audience that New Page supported the biosphere proposal for the same reason that it is registered for four different forest management programs. "As our woodlands manager Russ Waycott says: it demonstrates commitment. We also see the Biosphere designation as another plus in attracting the best employees to our company. We see no disadvantages to supporting it, and we see nothing we'd have to do because of it that we aren't doing already."

Panellist Henry Fuller said that not to bother with the Biosphere application would be to abdicate our responsibility. "We all agree this is a good thing to pursue. We've been meeting with several industry groups, but I'm still disappointed with some of the misinformation that exists out there."

Panellist Bruce Hatcher said it's time to "balance our economic and cultural development with economic sustainability." Hatcher drew upon his lengthy career as a marine scientist working in 25 countries in expressing support for the proposal. "There are economic, ecological and cultural arguments for the designation. We have

a truly remarkable world-class ecosystem here in the Bras d'Or Lakes, but there's so much more we need to learn about being a sustainable culture and economy (here in Cape Breton)."

Panellist Tom Johnson said he was at the meeting to represent Mic Mac Chief Charlie Dennis. "First Nations people have always relied on the waters to sustain us, and supporting this proposal is just one way of acknowledging that debt. At first glance the Bras d'Or Lake looks pristine, but a closer look will reveal that's not the case. If we don't speak on behalf of the environment who will?" said Johnson.

Since all four panellists and the audience members with questions or comments appeared to all be in support of the Biosphere proposal, moderator Steve Sutherland asked if there was anyone who opposed the proposal. Nobody opposed spoke out. There was no representation present from the opposition groups, political or economic, despite the invitations and public notices given.

Jim St. Clair of Mull River said that he is a dissenting board member of the SH-RDA when it comes to the SH-RDA's opposition to the Biosphere proposal. St. Clair attempted to shed some light on historic patterns of Inverness County's "mistrust" of what may sometimes be perceived as Sydney-based initiatives.

Another member of the audience suggested the argument for the Biosphere proposal has been expressed "too academically" and could benefit from more passion, emotion and engagement.

Parker Donham suggested the opposition from the mining sector may have been "collateral damage" from the public opposition to mining at Digby Neck, NS.

Others supporters urged putting more pressure on those who oppose the proposal.

"Tell the politicians that they're not representing you. Remind them that you are a voter. There's a provincial election on. Demand their positions on the issue be on public record," was the advice of another Biosphere supporter.

Reprinted from the Inverness Oran,  
May 27, 2009

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**1 800 565 1633**

Our Email: [stewardship@baddeck.com](mailto:stewardship@baddeck.com)

**2009**

## **BRAS D'OR STEWARDSHIP SOCIETY**

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