

Eastern Charlotte Waterways Presents:

*2nd Annual
New Brunswick
Lakes Conference*



**EVENT
PROGRAM**

January 26th, 2013

Riverside Resort and Conference Centre, Mactaquac



Greetings,

On behalf of the Board of Directors and my fellow staff at Eastern Charlotte Waterways I would like to welcome you to the 2nd Annual New Brunswick Lakes Conference. Whether you've travelled from near or far, we appreciate you taking the time to join us in the effort to advance lake stewardship in New Brunswick.

We have endeavoured to provide you with an engaging program that successfully builds upon last year's event, while setting the stage for future stewardship initiatives. We are once again joined by professionals, academics, and community representatives, all of whom have graciously volunteered their time. They will inform us about the issues facing our lakes, and also the tools that are available to conserve them. A breakout session at the end of the day will provide each of us with an opportunity to help develop the New Brunswick Alliance of Lake Associations, which I believe is an exciting evolution in the community based effort to conserve New Brunswick's lake resources.

Today's event would not have been possible without the financial support of the New Brunswick Department of Environment and Local Government's Environmental Trust Fund, as well as the Fredericton Community Foundation's Creed-Beattie Fund, and the Support for Translation and Interpretation Program of the New Brunswick Department of Intergovernmental Affairs. We would like to offer them our sincerest thanks. I would also like to thank each of you. It is your passion for the lakes of New Brunswick that make this event possible.

I hope you enjoy the Conference, and I look forward to working alongside many of you in the coming year.

Yours in stewardship,

A handwritten signature in black ink, appearing to read "Killorn", written in a cursive style.

Donald Killorn
Executive Director

SCHEDULE

- 8:30-9:00 Registration
- 9:00-9:10 Welcome
Donald Killorn, Eastern Charlotte Waterways Inc.
- 9:10-10:00 Keynote Address: The State of New Brunswick Lakes
Don Fox, NB Department of Environment & Local Government
- 10:00-10:45 Assigning Intrinsic and Monetary Value to a Healthy Lake Ecosystem
Dr. Shawn Dalton, Thrive Consulting
- 10:45-11:00 Morning Break
- 11:00-11:45 Cyanobacteria: An Ancient Organism, a New Threat
Dr. Alyre Chaisson, Université de Moncton
- 11:45-12:15 Cyanobacteria: The Effect on New Brunswick's Lake Residents
Residents of Lac Unique and Chamcook Lake
- 12:15-1:00 Catered Lunch
- 1:00-1:45 The Invasive Species of New Brunswick's Lakes and Lakeshores
Jonathan Carr & David Mazerolle, NB Invasive Species Council
- 1:45-2:15 Canadian Rivers Institute: Developing Solutions for NB Lakes
Dr. Allen Curry, Canadian Rivers Institute
- 2:15-3:00 Community-Based Environmental Monitoring
Dr. Cathy Conrad, Community-Based Environmental Monitoring Network
& CURA H2O
- 3:00-3:30 Volunteer Lake Monitoring: A New Brunswick Model
Julia Carpenter, Eastern Charlotte Waterways Inc.
- 3:30-4:15 New Brunswick Alliance of Lake Associations: To Be or Not To Be?
Hal Mersereau, NBALA Steering Committee
- 4:15-5:00 NBALA Breakout Session

PRESENTATION BRIEFS & SPEAKER BIOS

In order of appearance

Keynote Address: The State of New Brunswick Lakes

Presented by Don Fox

New Brunswick Department of Environment & Local Government

Don Fox has been the Provincial Water Quality Specialist for the Department of Environment for the past 11 years. He works with a group of people within the Department who are science-focused and are responsible for data collection, management, assessment, and reporting of surface waters in New Brunswick.

Intrinsic and Monetary Values of Healthy Lake Ecosystems

Presented by Dr. Shawn Dalton

Social Ecologist, Thrive Consulting

Shawn Dalton is a social ecologist with over 20 years of experience working at the interfaces among landscapes, communities, and policy frameworks. Dr. Dalton has organized, managed, and carried out projects in community-based natural resource management in inner city neighborhoods and rural communities; facilitated inter-jurisdictional watershed planning and management partnerships including federal, provincial, regional, and local government agencies, non-profit organizations, business and industry, and community members; designed and delivered a variety of training programs to federal and local resource managers; and designed and carried out applied research in warfare ecology, watershed management, social network analysis, and climate change mitigation, adaptation, and community vulnerability analyses. She also has experience in the development and delivery of outdoor experiential environmental education programs for both youth and adults. Dr. Dalton is currently working with three community-based watershed associations to develop long-term strategies to maximize social and economic benefits and minimize social, economic, and environmental costs of industrial development in urban and rural New Brunswick, Canada. She is also developing, for the Assembly of First Nations Chiefs in NB, a long-term integrated social ecological research program and an environmental education and career paths program for First Nations youth in New Brunswick.

Dr. Dalton has an undergraduate degree in Biology from Sarah Lawrence College, a Masters in Environmental Studies from the Yale University School of Forestry and Environmental Studies, and a doctorate in Social Ecology and Organizational Sociology from The Johns Hopkins University.

This talk will address concepts, tools and techniques used for measuring the intrinsic and economic valuation of lake ecosystems.

Cyanobacteria: An Ancient Organism, a New Threat

Presented by Dr. Alyre Chaisson

Université de Moncton

Dr. Alyre Chaisson has been a professor in the Biology Department at the Université de Moncton since 1987. He specialises in the behaviour and ecology of freshwater fish and their habitat. He is a member of the board of directors of the Fundy Model Forest, on the executive of Science Atlantic and is also a member of the province's Protected Natural Areas Scientific Advisory Committee. In April 2012, he was a recipient of an award from Science Atlantic for the promotion of science in the Atlantic Region. Outside of work hours you can find him backpacking, cross country skiing or fishing.

Cyanobacteria have been making headlines across Canada and the world. What are these organisms and why are they causing problems? This presentation gives a general overview of the ecology of Cyanobacteria in freshwater systems and what solutions are available to control their growth and toxins. In particular the research being conducted on Phoslock © in the Irishtown reservoir in Moncton New Brunswick as a treatment method will be highlighted. The presentation is in French.

Invasive Species of New Brunswick's Lakes and Lakeshores

Presented by David Mazerolle, Botanist, Atlantic Canada Conservation Data Centre & Jonathan Carr, M. Sc., Director, Research & Environment, Atlantic Salmon Federation

David M. Mazerolle holds both an undergraduate degree (Biology/Geography) and a graduate degree (Environmental Studies) from the Université de Moncton, where his thesis research focused on the management of exotic invasive plant species in protected natural areas. An accomplished field botanist, he has over fifteen years of experience working on various research, survey and monitoring projects and has authored and coauthored numerous status reports and technical documents pertaining to the protection of some of Atlantic Canada's rarest plant species. He has worked as a Botanist at the Atlantic Canada Conservation Data Centre in Sackville N.B. since 2006, where his efforts are primarily focused on rare and protected plants in the Maritimes.

Jonathan Carr is the Director of Research and Environment at the Atlantic Salmon Federation, located in St. Andrews, NB. He acquired his Masters of Science Degree at the University of New Brunswick on research involving the interactions between wild and farmed Atlantic salmon. Jonathan has 20 years of experience on various research programs that include the management and conservation of wild fish populations, restoration of endangered and threatened populations, unraveling the mystery of salmon lost in the marine environment, fish passage issues, exotic species, and interactions

between wild and farmed salmon. He has 19 peer reviewed scientific publications (13 as first author), and more than 30 unpublished research reports.

The spread of exotic invasive species constitutes a significant problem for native biodiversity and ecosystem conservation worldwide and carries with it significant socioeconomic impacts. Lakes and lakeshores in New Brunswick, which hold some of the province's most ecologically significant habitats and are among the most valued areas for recreation, are presently threatened by a number of introduced plants and animals. This talk will outline in a general fashion the various impacts of invasive species and the most important pathways of introduction and spread. Some of the most problematic species threatening the province's freshwater habitats will be presented in detail. Finally, the present state of New Brunswick's lakes will be discussed as well as what the future may hold.

Canadian Rivers Institute: Developing Solutions for NB Lakes

Presented by Dr. Allen Curry

Canadian Rivers Institute, University of New Brunswick

Allen Curry has a PhD in Zoology from the University of Guelph, MSc in Watershed Ecosystems from Trent University, and a HonsBES (Geography and Biology) from the University of Waterloo. He is currently a professor of biology, forestry, and environmental management at the University of New Brunswick in Fredericton, and holds the Cloverleaf/NBDNR Professorship in Recreational Fisheries.

He has been the Director of the Canadian Rivers Institute since 2004. His research interests and publications span a diversity of freshwater, estuary, and coral reef sciences including the ecology of fishes, food webs and ecosystems, and rivers and their landscapes. Underlying his science is the philosophy that understanding physical and biological processes is critical, but societal issues may need answers from science today.

Dr. Curry's presentation will address the NB WATERS online atlas and water application, and how the lake associations (and other community group) can use the site for their collective data. He will also talk about the Long-term Lake Monitoring Programme the CRI has been developing as the baseline data set for monitoring change in New Brunswick lakes.

Community Based Environmental Monitoring

Presented by Dr. Cathy Conrad, Oliver Woods and Sarah Weston

Community-Based Environmental Monitoring Network, St. Mary's University

While significant amounts of valuable data are collected annually through community-based environmental monitoring, the integration and use of this data by resource managers and decision makers remains limited. One of the most prevalent challenges in integrating environmental data gathered by volunteers is the potential for inconsistent collection methods, resulting in uncertainty of data accuracy. CURA H₂O seeks to address this challenge by standardizing data collection processes at the community level, and has developed a water quality monitoring training and certification course and an accompanying toolkit (Wet-Pro) that will provide all necessary monitoring equipment.

Funded by the Community-University Research Alliance (CURA) program of the Social Sciences and Humanities Research Council of Canada, CURA H₂O focuses on community-based water quality monitoring and the advancement of integrated watershed management in Nova Scotia and abroad. CURA H₂O engages the public in meaningful participatory management, and will provide resource managers with a broader set of reliable data upon which to base more informed decisions. The theoretical research directing CURA H₂O will generate new knowledge around issues of effective community-based resource management, improved accuracy of data collection, and the successful integration of volunteer monitoring into resource management. Potential social benefits of this research include not only the empowerment of communities to successfully assess the health and needs of their watershed, but also the development of a grassroots capacity to create solutions to environmental degradation concerns that negatively affect local water quality.

This five-year project is designed to increase community capacity for integrated water monitoring and management in Canada and abroad. The project team is composed of an alliance of partners representing academia, community stewardship organizations, non-governmental environmental organizations (NGOs), government agencies, First Nations communities, public schools, the agricultural community, and the private sector. This project is run out of the Saint Mary's University Geography Department in Halifax Nova Scotia, and is led by Principal Investigator Dr. Cathy Conrad.

Volunteer Lake Monitoring: A New Brunswick Model

Presented by Julia Carpenter

Freshwater Stewardship Co-ordinator, Eastern Charlotte Waterways

Julia Carpenter holds an undergraduate degree in Environment and Natural Resource Management, and a minor in Water Resource Management from the University of New Brunswick. She has a variety of experience working in both freshwater and marine environments, and will be finishing up her internship with Eastern Charlotte Waterways Inc. upon the completion of the New Brunswick Lakes Conference.

Over the past six months, Julia has been helping to organize the New Brunswick Lakes Conference, while working on a report which gives recommendations for the establishment of a New Brunswick Volunteer Lake Monitoring Program. Her presentation will cover the main points within her report, and the recommendations that have been made for a New Brunswick program.

New Brunswick Alliance of Lake Associations: To Be or Not To Be?

Presented by Hal Mersereau

Steering Committee, New Brunswick Alliance of Lake Associations

Hal is a retired educator having taught 34 years in the schools of Charlotte County, N. B., in Blacks Harbor, St. George and Deer Island. He grew up in the railway town of McAdam.

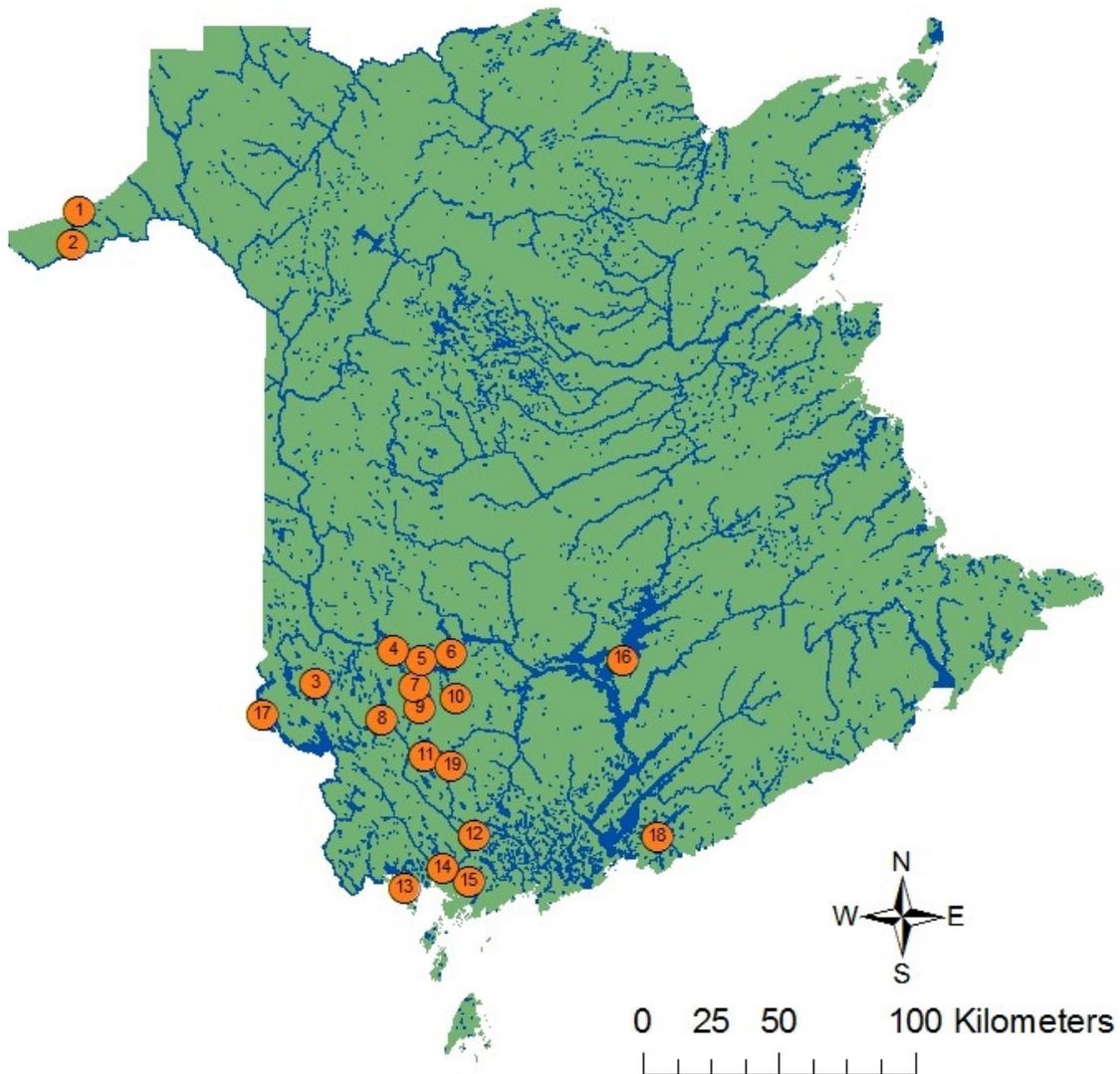
He resides, with his wife Janet, in St. George, but spends a great deal of time, in all seasons at the family cottage on Lake George, often enjoying the company of their 3 children and four granddaughters.

He spends his time babysitting granddaughters, coaching basketball, serving on several boards, relaxing at the lake or accompanying Janet on their many trips or musical outings.

Hal is a third generation property owner at Lake George and has been involved in advocating for lake causes since he became a founding board member of the Lake George Habitat Preservation Inc in 2007. Since that time he has been President of this lake association.

Hal is a member of the Steering Committee of the NBALA (New Brunswick Alliance of Lake Associations), which is the proposed umbrella group to represent the interests of lake associations in all areas of the province. This presentation will outline the historical development, present realities, and future hopes of NBALA, as well as its connection to lake associations.

MAP OF LAKE ASSOCIATIONS IN NEW BRUNSWICK



New Brunswick Lake Associations

- | | |
|---|--|
| 1. Baker Lake Watershed Committee | 11. Oromocto Lake Association |
| 2. Lac Unique Association | 12. MacDougall Lake Campers Association |
| 3. Skiff Lake Cottage Owners Association | 13. Chamcook Watershed Landowners Association |
| 4. Davidson Lake Association | 14. Digdeguash Lake Association |
| 5. Friends of Mactaquac Lake | 15. Lake Utopia Preservation Association |
| 6. Mactaquac Head Pond Residents, Inc. | 16. Grand Lake Watershed Guardians |
| 7. Lake George Habitat Preservation, Inc. | 17. Chiputneticook Lakes Conservancy, Inc |
| 8. Magaguadavic Lake Association | 18. Latimore Lake and Area Community Association |
| 9. Harvey Lake Association | 19. Peltoma Lake Association |
| 10. Yoho Lake Association | |

THIS WORKSHOP IS BROUGHT TO YOU BY:

Host



Eastern Charlotte Waterways is a not-for-profit, environmental resource and research centre based in Blacks Harbour. Its mandate calls for collaboration with like-minded organizations to promote community well-being through sound environmental health. This is accomplished by facilitating projects that integrate common social, economic and environmental concerns.

Contributors



Your Environmental Trust Fund at Work
Votre Fonds en fiducie pour l'environnement au travail

The Environmental Trust Fund provides assistance for action-oriented projects with tangible, measurable results, aimed at protecting, preserving and enhancing the Province's natural environment.



Since 1956 the Fredericton Community Foundation has been funding good works that enhance and strengthen the quality of life of all citizens in the Greater Fredericton Region. They provide a vital link between caring donors and the needs of the community.

