

# Information Package

Canadian Biosphere Climate Change Adaptation Forum

June 19-21, 2019  
Cape Breton, Nova Scotia



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## Hosted by:

Bras d'Or Lake Biosphere Reserve Association  
Collaborative Environmental Planning Initiative  
Cape Breton University

## Sponsored by:

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Parks Canada  
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NOVA SCOTIA

CAPE BRETON ISLAND

Bras d'Or Lake Biosphere

Chatham

Ingonish Centre

Inverness

Middle River

Bras d'Or

North Sydney

Glace Bay

Sydney

Ross Ferry

Memberton

Mabou

Wagamatcook

Baddeck

Boisdale

Port Hood

Whycocomagh

Little Narrows

Iona

Eskasoni

East Bay

Louisbourg

We'koamaq

Grand Narrows

Big Pond

Mira River

Marble Mountain

Johnstown

West Bay

Dundee

Pottotek

Port Hastings

St. Peter's

Arichat

NOTES:  
 Nova Scotia basemap by ESRI  
 Cape Breton - Basemaps downloaded from GeoNova Portal  
 Service Nova Scotia and Municipal Relations  
 Bras d'Or Lake watershed boundary courtesy of  
 Nova Scotia Department of Environment



United Nations  
Educational, Scientific and  
Cultural Organization



Bras d'Or Lake  
biosphere

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## **Welcome**

Welcome to the Land of Fog: Unama'ki, which is the ancestral territory of the Mi'kmaq. We are honoured that you have joined us for this exploration of the current climate crisis and the role of biospheres in fostering dialogue about a sustainable climate future.

All of the Canadian Biosphere Reserves are located within the traditional territories of Indigenous Peoples.

## **Preparing for Success**

While an awareness of climate has existed in many parts of the world for at least three decades, it is only recently that most Canadians have come to accept it as a defining context of their futures. The Canadian Biosphere Climate Change Adaptation Forum is one of many conversations that Canadians will have as they determine how to adapt, survive and thrive in a climate that is warming twice as fast as the rest of the planet. It is clear that Canada needs a more ambitious approach to tackling our climate crisis.

This package will provide you with a thumbnail glance at the Forum so you know what to expect, and will help you contribute effectively to the discussions.

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# Background

## **Why is this Forum taking place?**

As we in the Bras d'Or Lake Biosphere worked to achieve the goals of UNESCO's Man and the Biosphere Program, we realized that everything we did was impacted by climate change. Ultimately, none of our projects made sense except in the context of climate change, and we sought guidance on how to adapt locally. We found information about weather threats, warnings of negative impacts, and alarming fear mongering without explanation of appropriate response and strategies for planning and action.

We tried to learn as much as we could about the threats, vulnerabilities and opportunities climate change will bring to our biosphere, along with the actions we could take to adapt to change in a positive

manner. Ultimately, we came to the realization that Biosphere Reserves (BR) provide excellent context in which to develop and trial adaptation strategies and actions.

With assistance and examples of the CCUNESCO, the Canadian Biosphere Reserve Association (CBRA), and our many partners and sponsors in the Bras d'Or Biosphere, we began work on this Forum, where members of all of Canada's 18 Biosphere Reserves can share their experiences of and best practices for Climate Change Adaptation.

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## The Forum

The Canadian Biosphere Climate Change Adaptation Forum is designed to bring together the lived experiences and informed opinions of people living with and adapting to the Anthropogenic Climate Change in Biosphere Reserves across Canada. It follows the CBRA meeting on Tuesday, June 18th, and concludes on the Friday morning, June 21st, with the celebration of National Aboriginal Day.

### What to Expect

- Two full days of stimulating discussion, co-learning and exploration of the 21st Century's dominant theme: Anthropogenic Climate Change
- A program of knowledge sharing that stimulates discussion in targeted and facilitated workshop sessions
- Opportunities to share experiences and understandings in a variety of forms, from story-telling to real-time polling
- Opportunities to meet the people and experience the ecosystems of the Bras d'Or Lake Biosphere Reserve
- Knowledge, ideas and strategies to take back to your Biosphere, followed up with a synthesis summary and best practices report of the Forum outcomes
- Recreational activities including:
  - A visit to the Alexander Graham Bell National Historic Site
  - A sailing cruise on the Bras d'Or Lake
  - Exposure to the many cultural attributes of Cape Breton Island

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# Outcomes

## Anticipated Outcomes

- Better understanding of climate change adaptation strategies in place throughout the world
- Development of Climate Change Adaptation Guidelines for Canada's Biosphere Reserves
- Proposals for research and application projects that partner communities within Biospheres, and Biospheres within Canada and the EuroMaB network of BRs
- New collaborations, opportunities and friendships among participants

## Documenting the Journey

- A summary of the *Synthesis of Proceedings*
- A draft *Report of Guidelines and Best Practices of Adaptation* gathered from the lived experiences and adaptation stories shared at the Forum
- A *Final Report of the Forum*, elaborating guidelines and best practices for climate change adaptation in Canada's Biosphere Reserves (and, by extension, many other communities in ecosystems across the country)

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## Ground Rules for Forum Participation

- **Show Up.** Be thoughtful, be mindful and be present.
- **Listen.** Many insightful thinkers and participants will be sharing ideas. Take a moment to listen first before you share.
- **Ask “WHY”.** Exploring challenges and opportunities requires critical thinking and curiosity. Make sure you are thinking “WHY” throughout the workshop.

We also ask that you:

- Be truthful.
- Maintain an open mind.
- Trust and respect everyone.
- Recognize that differences of opinion provide opportunities to learn and explore.
- Contribute to the discussion rather than dominate it.
- Be committed to helping to make this a great forum!

Please bring your favourite references and case studies to share with others during the presentation or discussion sessions.

Talk with your Elders, colleagues, neighbours and families about the challenges and opportunities that will be experienced because of climate change in your Biosphere.

Consider the modes, methods and outcomes of adaptation that are practiced or envisioned. For this exercise, we will use the simplest, most common strategy for adaptation in the economically developed world:

- Understand Climate Change predictions for your Biosphere
- Assess the Risk & Impacts of Climate Change in your Biosphere
- Understand the meaning of Adaptation to Climate Change
- Undertake Adaptation Actions and monitor their outcomes
- Connect with the Adaptation Community at several levels



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## Program

### Tuesday, June 18th | Registration

PM

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4:00 Registration  
MacAulay Conference Centre, Inverary Resort, Baddeck

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6:00 Meet & Greet Reception  
Alexander Graham Bell National Historic Site

### Wednesday, June 19th | Opening of the CCA Forum

MacAulay Conference Centre, Inverary Resort, Baddeck

AM *Morning Activities are Open to the Public*

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8:00 Registration

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9:00 Official Opening of the CCA Forum Susan Gesner  
GAEL

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9:20 Youth Voices Speak Collaborative Environmental  
Planning Initiative (CEPI) Youth

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9:45 Smudging Ceremony and Opening Prayer

10:30 Nutrition Break

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10:45 Presentation Senator Dan Christmas  
Topic: Collaborative Environmental Planning  
Initiative and Two-Eyed Seeing

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11:15 Presentation Garrett Mombourquette,  
Topic: Vulnerabilities & Opportunities Parks Canada

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11:40 Presentation Robert Muggah  
Topic: Predictions Modelling Igarape Institute, Brazil

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12:15 Lunch (*Reserved for Forum Registrants*)

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### Wednesday, June 19th

MacAulay Conference Centre, Inverary Resort, Baddeck

PM *Afternoon Activities are Reserved for Forum Registrants*

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1:15	Working Groups Topic: Threats & Opportunities	Susan Gesner GAEL
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2:30	Feedback from Working Groups	
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2:45	Nutrition Break	
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3:00	Working Groups Topic: Tools & Planning	
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4:00	Feedback from Working Groups	
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4:30	End of Afternoon Session	
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### Thursday, June 20th

Wagmatcook Heritage & Cultural Centre, Wagmatcook

AM *Morning Activities are Open to the Public*

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9:00	Wednesday Recap	Susan Gesner GAEL
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9:30	Panel: Perceptions from Knowledge Holders <ul style="list-style-type: none"><li>• Indigenous perspective</li><li>• Biosphere Reserve perspective</li><li>• Planning perspective</li><li>• Q&amp;A</li></ul>	Tom Johnson Eskasoni Fish and Wildlife John Stuart Niagara Escarpment Commission Doug Foster New Dawn Enterprises
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10:30	Nutrition Break	
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10:45	Examples from Canadian Biospheres <ul style="list-style-type: none"><li>• Bras d'Or Lake Biosphere Reserve</li><li>• Fundy Biosphere Reserve Acadian Forests</li><li>• Beaver Hills Biosphere</li></ul>	Rod Beresford and Joe Googoo Bras d'Or Lake Biosphere Reserve Jennifer Dingman Fundy Biosphere Reserve Bill Ilnicki Beaver Hills Biosphere
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**Thursday, June 20th**

Wagmatcook Heritage & Cultural Centre, Wagmatcook

PM *Afternoon Activities are Reserved for Forum Registrants*

12:15 Lunch (*Reserved for Forum Registrants*)

1:15 Working Groups  
Topic: Modes and Capacities of  
Adaptation

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2:15 Feedback from Working Groups

3:00 Nutrition Break

3:15 Large Group Discussion  
Topic: Biosphere Reserve Adaptation  
Plans

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4:30 End of Session

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**Friday, June 21st**

RBC Theatre & Great Hall, Cape Breton University, Sydney

AM *Morning Activities are Open to the Public*

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10:30 Forum Wrap Up  
Summary of Outcomes

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11:15 Deliverables and Next Steps

12:00 National Indigenous Day Feast and Festivities

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## **Forum Facilitator**

Susan Gesner (GAEL): Susan will be facilitating the Forum. She is the President of GAEL, an independent consulting firm specializing in environmental facilitation, engagement and development of learning programs. Susan works directly with Indigenous, federal and provincial agency/private sector leaders to provide strategic advice, direction and support. She is known for her leadership, strong interpersonal skills and her ability to bring teams together for a common goal.

## **Organizers**

### **Bras d'Or Lake Biosphere Reserve Association (BLBRA)**

The BLBRA consists of hundreds of individual, family, institutional and corporate members, and a board of 20 directors. It is responsible for advancing the goals of the UNESCO Man-and-the-Biosphere (MAB) programme in the Biosphere, which was designated in 2011.

### **Cape Breton University (CBU)**

CBU is the Island's main university on the Island (in Sydney), with an enrollment of approx. 5,000 students. The Bras d'Or Institute (BdOI) at the University has conducted research within the Biosphere since 1974.

### **Collaborative Environmental Planning Initiative (CEPI)**

The CEPI is a Mi'kmaq led effort to develop an environmental management plan for the Biosphere. It serves the governance function for the Biosphere.

### **Canadian Biosphere Reserve Association (CBRA)**

The CBRA is a national organization that represents all 18 of Canada's Biosphere Reserves. It liaises closely with the Canadian Commission to UNESCO (CC-UNESCO), which in turn provides the Nation's formal liaison to the United Nations Educational, Scientific and Cultural Organization (UNESCO) in Paris.

### **The Intergovernmental Panel on Climate Change (IPCC)**

The IPCC is a UN-convened, multi-national team of experts that provides the best available information on, and predictions of future changes in the global climate on a five year cycle.

### **Unama'ki Institute of Natural Resources (UINR)**

The UINR provides guidance to the five First Nations of Unama'ki on the status and use of natural resources. It takes a holistic approach to its research and educational activities that incorporates Western and Indigenous world views.

# Our Presenters & Panelists



**Rod Beresford** is a faculty member in the Biology Department at Cape Breton University. Since 2008 he has taught Integrative Science courses in Aboriginal communities across Nova Scotia. His research focus is the MSX parasite that devastated the Bras d'Or Lake oyster population. Rod currently works with Aboriginal and non-Aboriginal oyster lease holders, provincial and federal regulators, and communities around the Bras d'Or to re-establish the oyster industry in the Bras d'Or Lake.



**Senator Dan Christmas** has served in various leadership positions in the Mi'kmaw Nation of Nova Scotia. After serving five years as the Band Manager for the Community of Membertou, Mr. Christmas worked for the Union of Nova Scotia Indians for 15 years - the last 10 as its Director. He was actively involved in the recognition and implementation of Mi'kmaw aboriginal and treaty rights in Nova Scotia. From 1997 to 2016, Mr. Christmas held the position as Senior Advisor with Membertou and had assisted the Chief and Council and its Management Team with the day-to-day operations of the Community of Membertou. Dan also served as elected councilor for Membertou for 18 years. In December 2016, Mr. Christmas was sworn in as an Independent Senator for Nova Scotia. Senator Christmas is the first Mi'kmaw senator to be appointed to the Senate of Canada.



**Jennifer Dingman** was born and raised in Calgary, AB but is proud to call New Brunswick home and has lived in Riverview for almost half her life. She holds an undergraduate degree in Environmental Biology from the University of New Brunswick and stayed on to complete a PhD investigating algal population cycling and marine microbial ecology. Jennifer has a strong scientific background and has a wide range of research and project management experience from sectors including municipal and federal government, NGOs and universities. She has a passion for community service and community development, science outreach and education. As the Executive Director of UNESCO Fundy Biosphere, she is responsible for implementing the mandate of the Biosphere Reserve and guiding the organization to meet its strategic objectives around conservation, sustainable development, and capacity building.

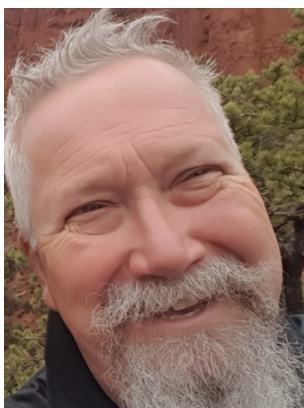


**Jo Googoo** hails from the First Nations community of Waycobah located on the shores of the Bras d'Or Lake. As a life-long oyster fisherman, Jo will be contributing his extensive knowledge and experience of the Bras d'Or Lake with other panelists at the CCA Forum. To get a more complete picture of Jo's efforts in re-establishing the Bras d'Or oyster fishery watch the video "Striking Balance". <https://www.tv.org/video/documentaries/ep-4-bras-dor>



**Doug Foster**, another of our very diverse speakers who will address the CCA Forum, is a graduate in Urban and Regional Planning from the University Waterloo in 1972 and has worked in all four Atlantic Provinces in both provincial and municipal planning. Doug has had over forty years of experience as a Professional Planner including three decades as Director of Planning and Development in Cape Breton County and the Cape Breton Regional Municipality.

Doug is convinced that policy, planning and government often lack sufficient awareness of science; but he also think that the reverse can be true. So that's the theme of his talk - the marriage of science and public policy/regulatory processes.



**Brian Ilnicki** is Director of Beaver Hills Biosphere Reserve which is located in Strathcona Co. east of Edmonton, Alberta. Brian has spent the past 30 years bringing people together to work on common priorities for achieving sustainability on the landscape. Working throughout the diverse landscapes of Alberta, Brian has partnered with individuals, organizations and all levels of government to design and implement conservation and stewardship programs that benefit landowners, land managers and biodiversity. As the Executive Director for the Beaver Hills Biosphere, Brian works with partners to help advance projects that, in turn, help to advance the goals of Canada's newest UNESCO Biosphere.



**Tom Johnson** of Eskasoni Fish & Wildlife, who has played many roles over the years including serving as Executive Director for the past twelve years. He has been a tireless advocate for the rights and needs of the Mi'kmaq people. As a speaker at the Forum, Tom will provide a "two-eyed seeing" perspective to discussions. Tom is on the Board of the Bras d'Or lake Biosphere and is a CCUNESCO Indigenous Circle representative from our Biosphere. Tom has also been instrumental in the regeneration of his first language - Mi'kmaq. His current role as co-founder for the Eskasoni Mi'kmaq Language Initiative has allowed him to plan with his team members two community language conferences for the youth and another for the adults.



Originally from Dartmouth, Nova Scotia, **Garrett Mombourquette** is a Climate Change Ecologist with Parks Canada. His focus is on assessing vulnerability and identifying adaptation options for Parks Canada sites in Atlantic Canada. As a PhD student at the University of Waterloo, Garrett's research interests include how green infrastructure is managed and planned to facilitate adaptation to climate change. He has worked as a field biologist, planner, and climate change ecologist in protected areas at the federal, provincial, and local levels.



**Robert Muggah** is a specialist in cities, security and new technologies. He is co-founder and research director of the Igarapé Institute - a non-profit think and do tank - known for developing award-winning data visualizations and technology platforms to improve public safety, social justice, and climate action. He is also a co-founder and principal of the SecDev Group – a digital risk consultancy working at the interface of the digital economy and urbanization. At SecDev Group, Muggah leads a team to help city, corporate and non-for-profit leaders improve their future preparedness through high resolution diagnostics, strategy development, exponential leadership training, and public talks. While his family is originally from Nova Scotia and Cape Breton, Robert is based in Brazil.



**John Stuart, MCIP, RPP** is a professional land use planner with 5+ years' experience in the development industry and resource management. John is currently acting in the role of Senior Strategic Advisor for the Niagara Escarpment Commission (NEC). The NEC is an arms-length regulatory agency of the Government of Ontario and acts as the convener of the Niagara Escarpment Biosphere Reserve (NEBR)”



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