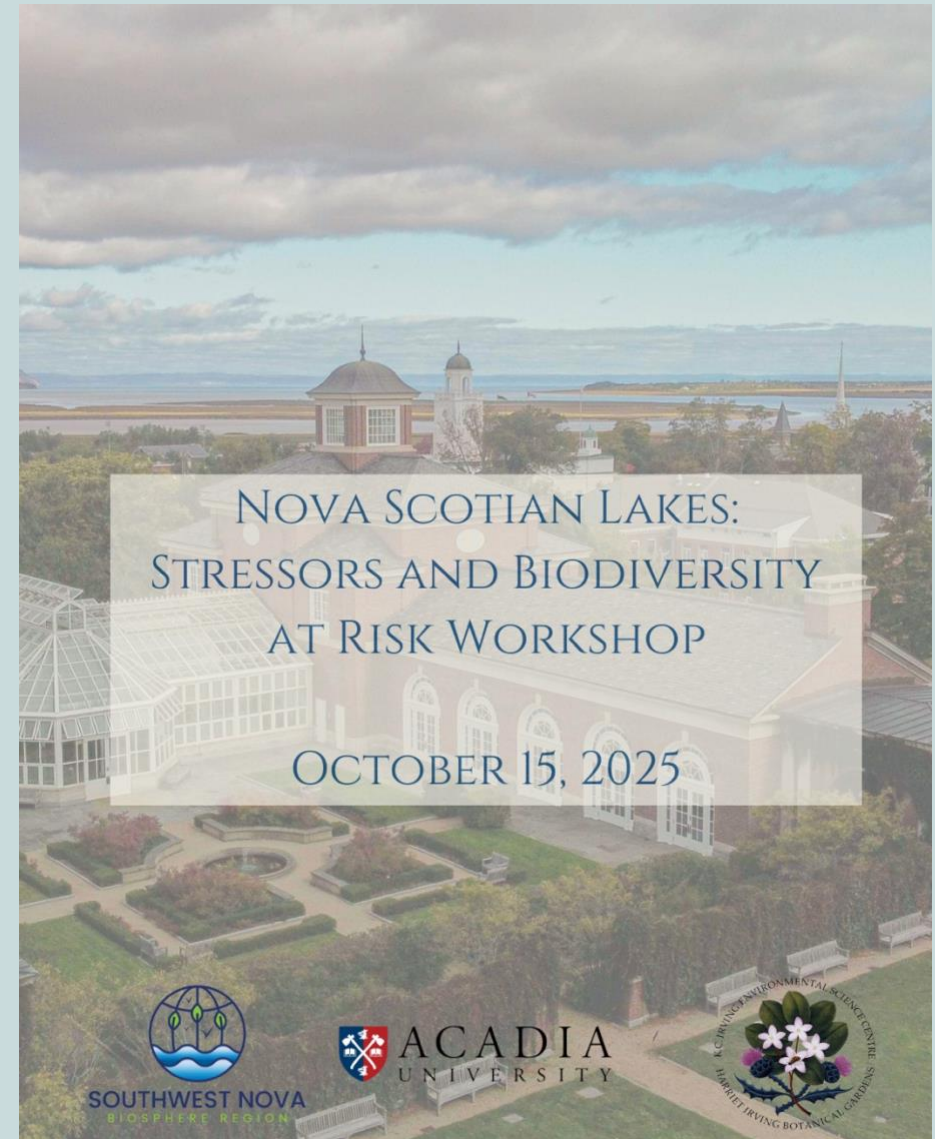


Brad Toms and **Alain Belliveau** will discuss their work measuring human impacts to the shorelines of several high-priority ACPF lakes across several time spans, and across both anthropogenically disturbed lakeshores and pristine lakeshores. The results and trends will be shared and related to enforcement and compliance gaps.

*Thank you to moderator **Dr. Graham Daborn**. Thank you note takers **Sarah Hines** and **Gretchen McPhail**.*

Notes:



Talk Descriptions

Time	Event	Location
8:30-9:00	Registration table open	Irving Centre Auditorium Lobby
Introduction to Lakes and Waters		
9:00-9:20	Reconciliation of the Landscape of Mi'kma'ki-- Elder Lorraine Whitman, Glooscap First Nation	Irving Centre Auditorium
9:20-9:30	Introduction to the Day- Nick Hill, Southwest Nova Biosphere Association	Irving Centre Auditorium
Plenary Sessions		
<i>Introduced by moderator Graham Daborn, Emeritus Professor, Acadia University</i>		
9:30-10:10	Mechanisms, Partnerships, and Action – Building an Evidence-Informed Stewardship Strategy for Nova Scotian Lakes—Steven Cooke, Carleton University	Irving Centre Auditorium
10:10-10:30	Coffee break	Irving Centre Auditorium Lobby
10:30-11:10	The Evolution of Lake Health Issues and Priorities in Ontario: Lessons for Nova Scotia Lake Management—Andrea Kirkwood, Ontario Technical University	Irving Centre Auditorium
Conversations to set the stage		
11:10-11:25	Nova Scotia and the Change in Climate: data, patterns and trends from 1960 to present <i>David Garbary</i>	Irving Centre Auditorium
11:25-11:40	Quantifying the vulnerability of shallow organic lakes in southwestern Nova Scotia <i>Ian Spooner</i>	Irving Centre Auditorium
11:40-11:55	Lakes in the watershed: Hydrological processes and biodiversity <i>Nick Hill</i>	Irving Centre Auditorium
11:55-12:10	High-Priority ACPF Lakes: Monitoring changes over time and across different disturbance regimes <i>Alain Belliveau and Brad Toms</i>	Irving Centre Auditorium
12:30-1:30	Lunch	Irving Centre Garden Room
Group Discussions		
1:30-3:00	Breakout Groups A. Land Use: Impacts to Lake Habitat (disturbances: shoreline development, wetland loss) B. Land Use: Sources of Pollution (e.g. mining, agriculture, forestry, urbanization) C: Hydrological Regulation (dams, water flows, levels) D. Invasive Species <i>* each group will integrate impacts of climate change and acidification in discussion</i>	A: Irving Centre Library B: Irving Centre Classroom C: Irving Centre Seminar Room D: Irving Centre Meeting Room
3:00-3:15	Coffee break	Irving Centre Auditorium Lobby
3:15-4:30	Group Discussion: <i>Toward an Overall Threat Assessment for Lakes</i>	Irving Centre Classroom
4:30-4:45	Closing and next steps	Irving Centre Auditorium

Elder Dr. Lorraine Whitman of Glooscap First Nation will provide a land honouring and connection to the landscape of Mi'kma'ki.

Dr. Steven Cooke will summarize the state of freshwater biodiversity and why protecting/restoring it is a matter of urgency. Next, he will provide an overview of key threats. Finally, he will explore strategies to address the freshwater biodiversity crisis with a particular focus on how this can be operationalized in the context of lakes in Nova Scotia.

Dr. Andrea Kirkwood will provide an overview of lake health in south-central Ontario (aka “cottage country”) to serve as a future analog for lakes in southwest Nova Scotia facing similar environmental challenges and threats. Lake health will be discussed through the lens of multiple stressors including land-use, eutrophication, invasive species, and climate change.

Dr. David Garbary will present data on temperature, precipitation and wind patterns from the 1960s to present day. Patterns suggest climate change in Nova Scotia reflects both human induced causes and larger atmospheric and oceanographic cycles.

Dr. Ian Spooner will explain most freshwater lakes in southwestern Nova Scotia are small (<4 ha), shallow (<6 m average depth), and rich in dissolved organic carbon—conditions that contribute to thermal vulnerability and rapid habitat degradation. Previous research will be compiled to show that lakes in southwestern Nova Scotia are distinct from those elsewhere, and climate models suggest they will face unique environmental stressors in the future.

Dr. Nick Hill will discuss how watershed position affects hydrology, water chemistry, sediment regulation, hydrologic connectivity, temperature, and habitat structure. Impacts to lake riparian habitat by small sawmill damming in the 1920s, and large dams of the 1920s-1930s will be explored. Nick will make the point that benchmarks need to be rooted in the time when the river was viewed as spirited and alive.