

NSIS

2024-2025
LECTURE SERIES

7:30pm (unless noted otherwise)
Normally 1st Monday of the Month

SEMINARS
ARTICLES
FIELD TRIPS

160+ YEARS
OF SCIENCE!

THE NSIS

Nova Scotia's Science Society

The Nova Scotian Institute of Science (NSIS) was founded in 1862 and is one of the oldest learned societies in Canada.

Monthly NSIS gatherings provide a meeting place for scientists and those interested in science. The NSIS facilitates communication among scientists, technologists, educators, administrators, and the community through its public lecture series, discussion panels, its scientific society journal, and other fun scientific initiatives (e.g., a yearly writing competition for post-secondary students).

Representation and promotion of science has never been more relevant and important, the pace of discovery and innovation is fast and global challenges depend on scientific understanding and advancement.

We encourage anyone with an interest in science to reach out and become an NSIS member today!



Jillian Phillips

2024/25 NSIS President

Manager of Science Education at
Discovery Centre

ABOUT US

Promoting Science Since 1862

We are a membership society that promotes science to all Nova Scotians including students, academics, and the general public.

We invite you to get involved, regardless of your affiliation or level of experience.

Attend a Free Lecture: Our free NSIS public lectures take place the first Monday of each month from October-May and cover a range of topics that are of interest to a broad audience.

Share Your Discoveries: Submit a written manuscript for our peer-reviewed society journal called *The Proceedings of the NSIS*.

Student Competition: Submit an article to the annual NSIS Student Science Writing Competition for a chance to win prizes!

Become a Volunteer/Be Mentored: Explore our volunteer program, a great way for future science leaders to network with other scientists and science enthusiasts.

Thirst for Knowledge?

Read an issue of the Proceedings of the Nova Scotian Institute of Science, a free online publication featuring a range of articles of relevance to Nova Scotia.

You can also browse articles in the historical online archive of the Proceedings of the NSIS, or visit the online NSIS Hall of Fame to learn more about influential Nova Scotian scientists.

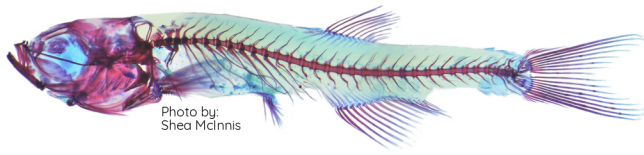


Photo by: Shea McInnis

MEMBERSHIP

Membership in the NSIS is open to anyone with an amateur or professional interest in science.

As an NSIS member you can enjoy access to the following benefits:



Exclusive alerts to new issues of the Proceedings of the NSIS



A copy of any special print issue of our proceedings published within your membership year



Email notices of monthly meetings and other special events such as field trips



A discount on page charges if your submitted manuscript is accepted for publication in the Institute's peer-reviewed journal



Participate in discussions with experts on issues relevant to science in Nova Scotia



You have the opportunity to meet local scientists and science enthusiasts

Membership Options

Regular member \$40/year

Student member \$10/year

Life membership \$300

We accept E-transfers for memberships!

To become an NSIS member visit:
www.nsis1862.ca

We thank our partners who have joined us in our journey and mission to promote research and education in science...



NSIS LECTURE SERIES

Lectures are hybrid events: in-person at either St. Mary's University, Cape Breton University, or St. Francis Xavier University depending on the date, and also online via Zoom (links posted 1-week before on our website). Buildings and room numbers are also posted on our website.

October 7 - Cape Breton University

The Impact of Cape Breton's Changing Climate on its Fresh Water Resources



Fred Baechler
Hydrogeologist/
Hydrologist at
EXP Services Inc.

Mr. Baechler has been undertaking research on Cape Breton's changing **climate** and the impact on its **freshwater resources** for over 25 years. This lecture will identify how Cape Breton's climate is changing and what is known to date about how it is impacting the island's ground and surface resources.

November 4 - Saint Mary's University

How do insects stretch their physiological limits in response to environmental stress?



Dr. David Awde
Mount Saint Vincent
University

Increasing global temperatures and frequency of extreme weather events are likely outpacing the ability of most animals to adequately respond. Dr. Awde will explore the environmental and physiological mechanisms that influence **insect responses to temperature change**, and discuss future work that will compare and contrast these mechanisms using **native and invasive species**.

December 2 - St. Francis Xavier University

Heart Health is Brain Health



Dr. Erin Mazerolle
St. Francis Xavier University

How can we keep the mind sharp as we age? What is **dementia**, and can it be prevented? Why is it important to talk to a healthcare provider if you are noticing problems with **thinking or memory**? Dr. Mazerolle will help answer these questions by describing the tight relationship between **heart health** and **brain health**.

January 13 - Online

Careers in Science: Panel Discussion with Nova Scotian Scientists

Online
Only!
@ 6:30pm

February 3 - Cape Breton University

Ankukamkua'tu, 'doing treaty', in Fisheries



Dr. Shelley Denny
Unama'ki Institute of
Natural Resources

Despite the recognition of the treaty right to fish for a moderate livelihood in 1999, little movement toward enhancing governance occurred that respected the authority of both the Mi'kmaq in N.S. and the Department of Fisheries and Oceans. As a result, the **moderate livelihood fishery** is contested on the water and land. Dr. Denny will explore how the Mi'kmaq and DFO could govern Mi'kmaq treaty fisheries using **Two-Eyed Seeing**.

March 3 - Saint Mary's University

Student Symposium



Join us as we discover the latest research findings of **student scientists** working at nearby N.S. research institutions.

April 7 - Cape Breton University

Understanding the Universe and its Evolution from 2 km Underground



Dr. Arthur McDonald
Queen's University
Nobel Physics Prize 2015

There has been remarkable progress in the past 60 years in understanding the **evolution of the Universe** since the **Big Bang**. Major contributions are being made by measurements in deep underground laboratories like SNOLAB, near Sudbury, Ontario. The lowest radioactivity lab on Earth. Measurements of **neutrinos** and **Dark Matter** will be described that address existential questions about the composition and evolution of our Universe.

May 5 - Saint Mary's University

Stem cell proliferation gone wrong: Mechanisms exploited in cancer cell proliferation



Dr. Lori Borgal
Mount Saint Vincent
University

During **human development**, stem cells must proliferate in a precisely controlled manner, failure can result in tissues such as the brain not forming correctly. Dr. Borgal will introduce molecular mechanisms required for **stem cell proliferation**, and consider how disruption of these same mechanisms could lead to uncontrolled cell proliferation in **cancer**.