

WELCOME

A Message from the NSIS President

Dear Members,

This year the NSIS celebrates their 160th anniversary! Join us as we celebrate our history – take a browse at our Hall of Fame of influential Nova Scotian scientists on our website. Nominations can be made using the nomination form on the website.

The Public Lecture series is one of the NSIS's primary means of highlighting the work of scientists across the province. We have a particularly interesting line-up this year and for a change, have included some student presentations and multi-speaker events. We will operate virtually as we did last year, using our zoom platform. The links of which will be posted on the Public Lectures webpage.

On behalf of the NSIS Council, I sincerely thank all the individuals who have committed to sharing their science research with Nova Scotians. Thank you to the NSIS members and our partner organizations for your continued support. Please help us increase our membership and reach by sharing this brochure with your friends and colleagues.

We are hopeful that we can run our excursions in 2022 and meet-up face to face once again.

Dr Tamara Franz-Ondeaal
2021-2022 NSIS President

ABOUT US

Promoting science since 1862.

We are a membership organization that represents & promotes science to Nova Scotians; students, academics, and the general public.

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

Attend a Lecture

Our free NSIS public lectures take place the first Monday of each month, October - May

Write For Our Publication

Write for the peer-reviewed NSIS Proceedings

Student Writing Competition

Submit an article to the annual [NSIS Student Science Writing Competition](#)

Become a Volunteer / Be Mentored

Explore our volunteer program, a great opportunity for future science leaders to shape their careers.

Thirst for Knowledge?

Read an issue of the Proceedings of the Nova Scotian Institute of Science, an 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 [NSIS Virtual Hall of Fame](#) to learn more about influential Nova Scotian scientists.

MEMBERSHIP

Membership in the Institute is open to anyone with an amateur or professional interest in science. As a member you enjoy the following benefits:

- ✓ Online access to the subsequent issue of the Proceedings of the Nova Scotian Institute of Science
- ✓ A copy of any special print issue of the Proceedings published within your membership year
- ✓ Email notices of monthly meetings and other special events
- ✓ A discount on page charges if your article 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 scientists whose interests cover a wide range of topics

Membership Options

- 1) Regular member | \$30 / year
- 2) Student member | \$10 / year
- 3) Life membership | \$300

We now accept PayPal for membership. Learn more about becoming a member at nsis.chebucto.org/about/membership



NSIS

Celebrating 160 YEARS

The Nova Scotian Institute of Science celebrates its 160th Anniversary in 2022, having been founded in Halifax in May, 1862.

Being 160 years old is a major achievement for an organization that has been a stimulus and focal point for scientific progress, reporting and communication in the Maritime Provinces.

This milestone brings the following opportunities: to celebrate Maritime science and the scientific enterprise; contemplate future challenges where science in our society plays a pivotal role; enlarge our membership; transition to the virtual culture; strengthen linkages with other scientific organizations; and sponsor future seminars and workshops, ensuring science and science education stay strong in our Maritime economy and culture.



Partners

Our achievements have been made possible thanks to the our partners who have joined us in our journey and mission to promote research and education in science.

MONDAYS
7:30 PM

2021-2022

VIRTUAL
LECTURE
SERIES

Access the Zoom link on the NSIS Public Lectures page one hour before lecture start.

nsis1862.ca

OCTOBER 4

Money Often Costs too Much

Reconsidering forest practices in Nova Scotia



Andy Kekacs

Executive Director,
Nova Scotia Woodlot
Owners &
Operators Association
(NSWOOA)

For 50 years, Nova Scotia embraced an industrial model of forest management, which emphasized the growth and harvesting of small-diameter softwood trees for commodity products such as wood pulp and small dimensional lumber.

Andy Kekacs discusses the impacts of that strategy on Nova Scotia's forest; the growing discontent among woodland owners; foundations of our current interest in ecological forestry; and following the path toward holistic forest management.

NOVEMBER 1

Making the Transition to Low-Carbon Energy in Atlantic Canada: How Will We Get There?



Dr. Wayne Groszko

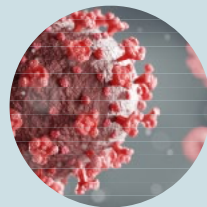
Professor,
Nova Scotia
Community College
(NSCC)

The transition to clean, renewable energy to reduce carbon dioxide emissions and address climate change is now proceeding rapidly around the globe.

What might that transition look like in Atlantic Canada? In this talk Dr. Wayne Groszko will explore pathways to a low carbon global society and the options and progress ahead for our region, with examples from the applied energy research being conducted at the Nova Scotia Community College.

DECEMBER 6

COVID-19 Student Research in Nova Scotia



Kaleigh McLeod
Saint Mary's University

Sumaiya Amin
St. Francis Xavier
University

Hillary Fry
Mount Saint Vincent
University

Mark Maclean
Dalhousie University

Student Showcase Topics

- An exploration of NS Thermomechanical Wood Pulp for Mask Production
- A genetic programming approach to find an effective vaccination strategy
- Infant Feeding during COVID-19 in Nova Scotia
- COVID-19 and the Nervous System: The role of inflammation and the blood-brain barrier

JANUARY 3

Traditional Ecological Knowledge and Molecular Biology Side by Side

Engaging students, communities, and industry



Rod Beresford
Cape Breton University

Mi'kmaw Knowledge Holders, Basque and Marshall, and CBU's Beresford, have worked together on the restoration of the Bras d'Or Lake oyster industry for the past 15 years and will share the stories of their shared journey



Lindsay Marshall
Potlotek First Nation
Cape Breton University

Last year, Basque, Beresford, and Marshall presented "The Mi'kmaq Calendar of the Seasons" at Cape Breton University, where Mi'kmaq Knowledge Holders and Biology Faculty explored topics of the Mi'kmaq Calendar.



Anita Basque
Potlotek First
Nation

FEBRUARY 7

Tidal Wetland Restoration & Ecosystem Services in the Bay of Fundy Dykelands



Dr. Jeremy Lundholm

Saint Mary's University

Dr. Alana Pindar
Cape Breton University

Dr. Danika Van Proosdij
Saint Mary's University

Dr. Kate Sherren
Dalhousie University

The Fundy Dykelands are a dynamic, working landscape threatened by sea level rise.

Communities are faced with deciding whether to shore up dykes to protect agricultural land, or move dykes back, allowing for tidal wetland restoration. Understanding these issues requires input from the physical, biological and social sciences.

This interdisciplinary panel will discuss how scientists are working with local communities to help restore resilience to our coastlines.

MARCH 7

Tiny Materials for Big Challenges

Designing Next Generation Nanomaterials



Dr. Mita Dasog

Department of
Chemistry, Dalhousie
University

Nanomaterials can be up to 10,000 times smaller than the width of a human hair and yet they possess great potential to address some of the big challenges humanity faces today.

They have already been applied in food, cosmetics, electronic devices, medical diagnosis and treatment, and environmental remediation, just to name a few. Dr. Dasog discusses nanomaterials that can harvest sunlight and use it to generate chemical fuels, electricity, and potable water.

APRIL 4

Tick Talk:

Small Pest, Big Problem



Dr. Nicoletta Faraone

Department of
Chemistry,
Acadia University

Ticks vector the widest array of disease-causing organisms of all blood-feeding arthropods and are second only to mosquitoes in their capacity to transmit disease agents of importance to human and veterinary health.

Being almost totally blind, ticks rely on chemosensation to identify and locate hosts for a successful blood meal.

Understanding the mechanism behind attraction and repellency induced by certain chemicals in ticks is pivotal to develop effective tick repellent products and avoid the transmission of pathogens that vector diseases, like Lyme disease.

MAY 2 | AGM 2022

Public Health Systems in Canada

Pandemics, Plagues, and the Power of Prevention



Dr. Gaynor Watson-Creed

Assistant Dean of
Serving and Engaging
Society,
Faculty of Medicine,
Dalhousie University

Dr. Watson-Creed will review and comment on how public health in Canada really works, from an insider's point of view, including during pandemics like the COVID pandemic of the past two years.