

# NSIS 2021-2022 VIRTUAL LECTURE SERIES

## OCTOBER 4

### Money Often Costs too Much

*Reconsidering forest practices in Nova Scotia*



**Andy Kekacs**

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

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**

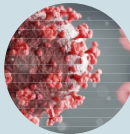
Professor,  
Nova Scotia  
Community College  
(NSCC)

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



**Lindsay Marshall**  
Potlotek First Nation  
Cape Breton University



**Anita Basque**  
Potlotek First  
Nation

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

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

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

MONDAYS 7:30 PM

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## 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.

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