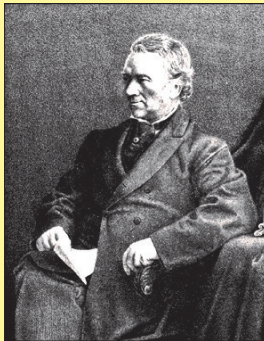


The Nova Scotian Institute of Science (NSIS) is one of the oldest learned societies in Canada. It was founded in 1862 and followed from the Halifax Literary and Scientific Society and the Halifax Mechanics Institute. It was incorporated by an Act of the Legislature in 1890. The Institute has since been a meeting place for those interested in science in Nova Scotia.

Early areas of enquiry included geology, minerals, botany, zoology, meteorology and physical geography. The Institute's founders included doctors, professors, lawyers, engineers, amateur naturalists and military men who were interested in the natural world and in the new areas of scientific study that were emerging in the mid to late 19th century. They were also eager to find new ways to harness the economic potential of natural resources.

Early members include Rev. David Honeyman, geologist & first curator of the Provincial Museum (pictured at right); Edwin Gilpin, Commissioner of Mines for NS; and Dr. Henry How, Professor of Chemistry at Kings College, to name a few.



Since those early years, the Maritimes and Nova Scotia have produced a plethora of prominent scientists and key discoveries. These range from Abraham Gesner, inventor of kerosene, to Willard S. Boyle, who shared the 2009 Nobel Prize in Physics for his work in developing the sensor widely used in digital cameras.

Like to learn more about the early years of the society? A brief history of the NSIS by Bruce Fergusson was published in the 1960s and is available online:

<http://hdl.handle.net/10222/13613>

The Nova Scotian Institute of Science celebrates its 150th anniversary in 2012. The Institute:

- Provides a forum to learn about and discuss scientific matters through public lectures and discussions, its peer-reviewed publication *The Proceedings of the Nova Scotian Institute of Science* and its website
- Draws attention to issues of concern to the scientific community, such as education, government policies and ethical considerations
- Promotes research and education in science by running a Mentorship Program and an annual Science Writing Competition for university students, as well as by giving financial support to Regional Science Fairs
- Presents current and historical material on its website

Celebrating the Connections between Science and Music



**SYMPHONY
NOVA SCOTIA**

We are delighted that Symphony Nova Scotia has chosen to highlight the 150th anniversary of the Nova Scotian Institute of Science! At the season opener on October 6 & 7, 2012, the orchestra will perform Haydn's *Creation* oratorio. During the free pre-concert chats (6:15pm & 2:45pm respectively), host Adrian Hoffman will moderate a panel discussion on the links between science and music, especially as they may pertain to this exceptional work by the Austrian composer. Each panel will include three Nova Scotia scientists who will comment on the topics presented by the moderator.

It is hoped that these performances will draw together members of both the scientific and artistic communities in a celebration of the natural world. NSIS congratulates Symphony Nova Scotia on its 30th season presenting world-class music to Nova Scotian audiences!

We invite you to:

- Attend the free NSIS public lecture held at 7:30pm on the first Monday of each month between October and April (see over)
- Read an issue of the *Proceedings of the Nova Scotian Institute of Science* for current research on topics of relevance to Nova Scotia
- Browse articles in the historical online archive of the *Proceedings of the NSIS*:
<http://tinyurl.com/dalspace-nsis-proc>
- Submit an article for peer-reviewed publication in the NSIS *Proceedings*
- Visit the NSIS Virtual Hall of Fame to learn more about influential Nova Scotia scientists:
<http://tinyurl.com/nsis-fame>
- Submit an article to the annual NSIS Student Science Writing Competition
- Explore our mentorship program, a great opportunity for future science leaders to shape their careers
- Become a member of the Institute

For further information, visit the NSIS website:

www.chebucto.ns.ca/Science/NSIS/

or

contact the President of the NSIS:

Michelle Paon
mpaon@dal.ca



Scan this code with your smartphone to visit the NSIS website



Events Program 2012-2013

150 Years of Promoting Science in Nova Scotia



Free Public Talks

Unless otherwise indicated, all lectures will take place at 7:30pm at the Museum of Natural History auditorium, 1747 Summer St., Halifax.



**GIRLS and Science:
Why it's Important and
How You can Support Them**

October 1, 2012
Dr. Tamara Franz-Ondendaal
Mount St. Vincent University

The NSERC Chair for Women in Science and Engineering (Atlantic Region) describes how she became a biologist specializing in craniofacial development and evolution. She will outline why it's important to encourage girls to pursue science, technology, engineering and medical (STEM) careers.

**Dying to Live: The Role
of Programmed Cell Death
in Plant Development**

November 5, 2012
Dr. Arunika Gunawardena
Dalhousie University



Programmed cell death (PCD) is a genetically encoded, active process which results in the death of individual cells, tissues, or whole organs. In the Madagascar lace plant, this results in unique perforated leaves. This lecture will focus on the lace plant as an excellent model for studying PCD.



**The Natural History of a
Sustainable Institution:
The Nova Scotian Institute
of (Natural) Science
since 1862**

November 21, 2012
Dr. Suzanne Zeller
Wilfrid Laurier University

Location: Potter Auditorium,
Rowe Building, Dalhousie University

In this special joint lecture between NSIS and the Royal Nova Scotia Historical Society, our speaker will reconsider in historical context the Institute's timely foundation, its subsequent achievements, and its remarkable longevity.

**Canadian Marine Science
from Titanic to BIO**

December 3, 2012
Dr. Eric Mills
Dalhousie University



Canadian marine sciences developed most rapidly after the Second World War. These developments included increased research in the Arctic, initiation of graduate studies in oceanography, expanded study of marine geology & geophysics, and the founding of the Bedford Institute of Oceanography.



**Seachange in the Ocean:
What do We Know?
and How do We Know It?**

January 7, 2013
Dr. Doug Wallace
Dalhousie University

Human-induced changes to our ocean are shifting from the local and regional to the global scale. This presentation will highlight the causes of change as well as new technological approaches, many originating in Canada, to making measurements within the global oceans.

Seeing the Universe in X-rays

February 4, 2013

Dr. Luigi Gallo
Saint Mary's University



X-rays are generated under extreme conditions and in environments that cannot be duplicated in labs. Dr. Gallo will present to you the Universe as it appears when viewed in X-ray light. He will discuss the various phenomena, describe how X-ray telescopes work, and discuss Canada's role in the next generation X-ray observatory, Astro-H.



How Good Can a Battery Be?

March 4, 2013
Dr. Jeff Dahn
Dalhousie University

The lithium battery used in an electric vehicle is subjected to much more demanding use than that in portable electronics. Can lithium-ion batteries, or some other battery technology, ever be good enough and inexpensive enough so no one will want a gas-powered vehicle?

**Getting a Machine to Fly-Learn:
Extending Man's Reach
Beyond His Grasp**

April 1, 2013
Dr. Daniel L. Silver
Acadia University



Join us to hear how machine learning is poised to extend man's mental reach in the virtual world – it provides the means to filter massive amounts of data, recognize complex patterns, and rapidly make difficult decisions.



**Sex-Deprived Fruit: How a Lack of
Breeding Threatens our Food's Future
& How Genomics Can Help
Fix the Problem**

May 6, 2013

Dr. Sean Myles
Dalhousie University

This talk will focus on how genetic information can be used to make breeding more efficient and cost-effective so that we can produce tasty fruit (such as apples and grapes) that requires less chemical input.

Special Events

This fall, several community partners will commemorate the NSIS 150th Anniversary:

Symphony Nova Scotia - Haydn's *Creation* concerts

Saturday, October 6, 2012 7:30pm
Sunday, October 7, 2012 4:00pm

Pre-concert panel discussions by scientists (6:15pm and 2:45pm respectively) moderated by Adrian Hoffman.

Location: Rebecca Cohn Auditorium, Halifax, NS.

For tickets, please contact the Dalhousie Arts Centre box office (902-494-3820) or visit the Symphony Nova Scotia website: www.symphonymovascotia.ca



**Joint Lecture presented by
the Royal Nova Scotia
Historical Society and NSIS**
(see lecture information at left)

November 21, 2012

NSIS Annual General Meeting & Banquet

May 6, 2013 Location: TBA
NSIS members and guests share a meal and enjoy the final lecture of the season.

Benefits of NSIS Membership

Membership in the Institute is open to anyone with an interest in science. As a member of NSIS you will:

- Receive a copy of the *Proceedings of the Nova Scotian Institute of Science*, a publication featuring a range of articles of relevance to Nova Scotia.
- Be informed about forthcoming meetings and special events through e-mail bulletins and mailings.
- Enjoy the opportunity of meeting scientists, educators and others whose interests cover a wide range of scientific topics.
- Receive a waiver of page charges, if your scholarly work is published in the *Proceedings*

Membership fees:

Regular member:	\$30/yr
Student member:	\$10/yr
Life member:	\$300

Name: _____

Address: _____

E-mail: _____

Phone: _____

Membership fees enclosed: \$ _____

If you wish, you can make a voluntary donation to promote the activities of NSIS (tax receipt will be issued): \$ _____

Please send this form with your cheque to:
Treasurer, Nova Scotian Institute of Science
c/o Reference & Research Services
Killam Memorial Library, 6225 University Ave.
PO Box 15000, Halifax, Nova Scotia
Canada B3H 4R2