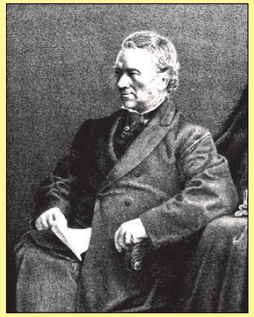
The Nova Scotian Institute of Science (NSIS) is one of the oldest learned societies in Canada. It was founded in 1862 and followed from the Halifax Literary and Scientific Society and the Halifax Mechanics Institute. It was incorporated by an Act of the Legislature in 1890. The Institute has since been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

Focus on Energy

The concept of energy has been with us since the time of Aristotle. Since then our thinking about energy, its multiple meanings and its significance to us have evolved and changed tremendously. The upcoming 2013-2014 NSIS Lecture Series will be an exciting one as it will focus on *energy* as the general theme. Upcoming speakers will present research in three broad areas: energy sources, energy transformation, and finally, world energy supply and the future of solar power. From the elegance of intracellular motors to the riddles of dark cosmic energy, from the diets of marine mammals to the detection of art forgeries, the topics promise to be intriguing and informative. Please join us for this thought-provoking series that highlights the work of a variety of Nova Scotia researchers, as well as that of a scientist from Yale University.

Photo: nsrenewables.ca

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://nsis.chebucto.org/nsis-hall-of-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.nsis.chebucto.org
or
contact the President of the NSIS:
Dr. Thomas Rand
Thomas.rand@smu.ca

Scan this code with your smartphone to visit the NSIS website

NSIS

About | Public Lectures

Events Program 2013-2014

Promoting Science in Nova Scotia since 1862

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.

Sustainable Approaches to Energy Harvesting and Storage

October 7, 2013
Dr. Mary Anne White
Dalhousie University

During this talk, you'll learn how materials research will play a key role in sustainable energy harvest and storage. Dr. White will outline how thermoelectric materials can be used to convert waste heat to useable power, as well as how phase-change heat-storage materials have important solar energy applications.

Dual-Speaker Event (Dr. Burton & Dr. Fawcett)
November 4, 2013

The Nitrogen Problem

Dr. David Burton
Faculty of Agriculture
Dalhousie University

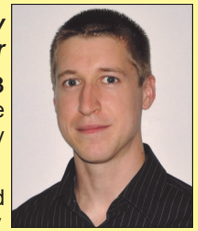
Nitrogen from industrial fixation now feeds one half of our population, but the increase in the amount of reactive nitrogen has had tremendous impacts on ecosystems. This presentation will discuss the "nitrogen problem" and outline current research designed to increase the efficiency of nitrogen use in agriculture and reduce impacts on air and water in Atlantic Canada.

Biological Nano-motors

Dr. James P. Fawcett
Dalhousie University

Ever wonder how the human heart ended up on the left side of the chest? Molecular motors are partly responsible. In this lecture, you'll hear about the different types of biological nano-motors that allow cells and tissues to function properly. The speaker will also discuss how defects in some of these motors lead to various disease states.

World Energy Supply and the Future of Solar Power



December 2, 2013
Dr. Doug Staple
Dalhousie University

A large number of economic, social, and strategic issues surround fossil fuels, and both nuclear & hydroelectric power. By comparison, solar power dwarfs the combined worldwide resources of fossil and nuclear fuels and is rapidly closing the price-performance gap with conventional fuels.

Energy Budgets in Marine Mammals: Tactics and Tricks

January 6, 2014
Dr. Sara Iverson
Dalhousie University

Marine mammals have evolved strategies of energy acquisition and use, but these strategies also experience trade-offs between the energy allocated to body maintenance functions, activities, growth, and reproduction, including the successful weaning of offspring.

Harvesting the Power of Light Energy: A New Tool for Art Conservation

February 3, 2014
Dr. Christa Brosseau
Saint Mary's University

Art conservation, restoration and authentication rely on the accurate identification of artist's materials, but in the case of rare works of art, it is often impossible to obtain enough pigment for chemical analysis. Join us to learn how surface-enhanced Raman spectroscopy (SERS) may be ideally suited to this analytical task.

Dual-Speaker Event (Dr. Clyburne & Dr. Martin)
March 3, 2014

Carbon Dioxide: Capture, Uses and Challenges

Dr. Jason Clyburne
Saint Mary's University

Much effort is being channeled into identifying affordable CO_2 capture and sequestration technologies, as well as potential conversion to value added products & fuels. This talk will explore the chemistry of carbon dioxide, address challenges for its capture, and identify promising avenues for large scale reuse.

Dual-Speaker Event (cont'd)
March 3, 2014

Global Air Quality

Dr. Randall Martin
Dalhousie University

Air pollution is believed to be the leading environmentally-related cause of premature mortality. This talk will highlight recent advances in analyzing data from satellites and models to improve our understanding of global air quality and its implications for public health.

Dark Energy in the Cosmos

April 7, 2014

Dr. Rob Thacker
Saint Mary's University

The 2011 Nobel Prize for Physics was awarded for the discovery that the Universe appears destined to expand at ever faster rates. The driver of this expansion is the uniquely strange "Dark Energy", which is expected to pose one of the greatest challenges to physicists and astronomers over the coming decades.

The Formation & Evolution of Galaxies

May 5, 2014
Dr. Louise Edwards
Yale University

Which factors have a greater impact on how a galaxy changes over time - its own stars, or the galaxies nearby? Dr. Edwards will address this question and others using recent images and videos from space-based telescopes like Hubble and Spitzer.

Special Events

October 3, 2013 - 7:00pm
Can We Sustain Democracy and the Planet Too?: Exploring Scientific Expertise in Public Life
Dr. Philip Kitcher, Columbia University
Location: Ondaatje Hall, Dalhousie University
(NSIS is one of several co-sponsors of this lecture)

NSIS Annual General Meeting & Banquet
May 5, 2014 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