

President's Reports

1997-1998 Dr. S.H. Heaps

I am pleased to report that 1997-98 has been a good year for the Nova Scotian Institute of Science. Meetings held on the first Monday of each month from October to May have included four meetings with a single speaker and four panel discussions involving several speakers. Attendance at meetings has been good. On two occasions the auditorium at the Nova Scotia Museum of Natural History was filled to capacity and there were people sitting in the aisles. This suggests that we are choosing the right topics for discussion.

It also leads me to conclude that the Institute is continuing to serve an important role and that it should continue to focus on topics of interest and importance to both active scientists, administrators of scientific organizations, those involved in government, as well as the general public. There is perhaps no other organization in Nova Scotia that is so well prepared to fill this role.

From time to time the Institute receives requests to comment on various proposals from government groups. We have contributed some feedback during the past year and I believe this is an activity to which we might devote greater attention in future years. Collectively the members of the Institute possess a great deal of knowledge and experience relating to science, and they do not have ties to particular organizations or special interest groups.

This year the Council of the Institute decided to take an active part in the Science Fairs that are directed at high school students. The Institute donated an award and will soon review the results with a view to deciding whether to continue the award in future years. I wish to thank our Secretary, Dr. Sherry Niven, for handling the details of this activity.

The Proceedings of the Institute are being published on a regular basis of one issue each year. I wish to thank our Editor, Dr. R.P. Gupta, who is responsible for all matters relating to the Proceedings.

You will be pleased to hear that the Institute is in good shape financially. This year the Council of the Institute agreed to implement a plan by which the Institute funds will be invested in a regular manner so as to receive the best interest rates compatible with fully guaranteed principal.

During the past year the Council of the Institute has included three observers. They are Debra Bursleson and Alex Wilson of the Nova Scotia Museum of Natural History and Nan MacDonald of the Discovery Centre. These three have been valuable members of council and we appreciate their interest and support.

The regular monthly meetings of the Institute are open to the public. At most meetings there are many in the audience who are not members of the Institute. I believe it is important to increase membership of the Institute, not primarily to collect more membership fees, but in order that we can claim to represent a larger cross-section of the concerned public.

I believe we should give more consideration to means of publicizing the aims and activities of the Institute. I suspect that most local scientists are aware of the existence of the Institute but may not be aware of how it can benefit them by presenting their concerns to the public, industry, administrators, and government. It can also present the concerns of these groups to the scientists. I have the impression that our attempts to publicize the activities of the Institute have been worthwhile and have led to an increased attendance at meetings. However, we still have a long way to go.

It has been a pleasure and an honour to be President of the Institute during 1997-98. I am sure that all members of the Institute would like me to express thanks to those who have served as members of the Council during the past year.

Respectfully submitted,
 Dr. H.S. Heaps
 1997-98 NSIS President
 May, 1998

1998-1999 Dr. Skerry E.H. Niven

My goal this year, as President of the Nova Scotian Institute of Science, was to highlight the scientific excellence of our province as well as the importance of scientific research to Nova Scotians. The talks and discussions for the monthly lecture series, listed below, were chosen with this goal in mind (see Proceedings).

Thanks to our excellent speakers and panelists, the lecture series was very successful. Large audiences were treated to interesting presentations and lively discussions. This year's lecture series highlighted the important role that the Institute plays in providing a regular forum for good scientific discussion. On behalf of the Council, I thank the series participants for the time and effort that they gave to the Institute to make the lecture series such a success. We also thank the Nova Scotia Museum of Natural History for the use of the auditorium and the South room for our meetings. Special thanks to Alex Wilson for his support and assistance throughout the year. Thanks also to Dr. Mary Anne White for suggesting the NSERC President, Dr. Brzustowski, as a speaker this year. Robert Roy, Public Relations Officer for NSERC, worked diligently with me to make the visit a reality. Thank you!

For National Science and Technology Week (October 1998), the NSIS prepared a poster celebrating the history of scientific excellence in Nova Scotia. The poster featured six scientists and inventors from Nova Scotia who are recognized throughout the world to have influenced the direction and development of their fields of research:

- Dr. Oswald Avery, the father of modern DNA-based genetics;
- Mr. Frederick G. Creed, inventor of the first data communications technology;
- Dr. Abraham Gesner, the inventor of kerosene;
- Dr. Charles Huggins, renowned oncologist and Nova Scotia's only Nobel Prize winner;
- Dr. Simon Newcombe, astronomer and one of the most influential scientists of the 19th century;
- Dr. Reginald Ruggles Gates, who furthered the development of cytological genetics and pioneered the use of blood typing in Physical Anthropology.

These scientists were also featured at the monthly lecture series.

Members of the scientific community have come to realize that public advocacy is necessary to ensure continued conduct of world class science in Canada. Consequently, the Council has begun to explore the role that the NSIS can play in science advocacy in Nova Scotia. We will work with other groups promoting science in Nova Scotia to formulate a strategic plan for increasing science advocacy and lobbying on behalf of the scientific community in Nova Scotia. Next year we will complete work started this year to update the NSIS By-Laws and to write a mission statement and a strategic plan for the Institute. These will be submitted for approval by the membership at the 2000 AGM. The Institute can act a credible, independent voice for scientists throughout Nova Scotia; however, we need to represent a larger portion of the scientific

community if we are to be effective in science advocacy and lobbying. The strategic plan will include plans to expand the membership.

The Council focussed its activities this year around the objective of "representing science and scientists in Nova Scotia and presenting Nova Scotia science to the public of the province." I joined the Board of the Atlantic Science Links Association to develop partnerships in science outreach with other science promotion groups in the province. Also, in addition to taking part in the National Science and Technology Week,

- The Institute awarded a prize at the Halifax Regional Science Fair for the best innovative multidisciplinary project. The money for the award (\$50) was raised through the sales of the Year of the Oceans calendar kindly donated by Fisheries and Oceans Canada;
- The Council donated \$200 (remaining from funds allocated for donation last year) to a workshop in November involving scientists and administrators from universities, government labs, and the private sector throughout the province to develop an action plan to increase the retention of women in science, engineering, and math; and
- We hosted another very successful *Science - A Family Affair* workshop at Dalhousie on May 1st. A dozen elementary students and their families enjoyed a morning of fun, hands-on science activities under the guidance of Mr. Surjit Verma. Thanks to Mr. Verma, Dr. Stephen Payne, and Mr. Peter Shacklock for organizing and running the workshop.

As a result of increasing requests from other science organizations for financial support of their projects, the Council has started to develop a policy on donations. This policy will be part of the Institute's strategic plan and a responsible financial plan in which expenditures will be focussed on the Proceedings and other primary NSIS activities such as the monthly lecture series.

Publication of the Proceedings demands most of the Institute's available finances, even with the generous assistance provided by the Nova Scotia Museum of Natural History. To ensure regular publication of the proceedings while allowing the Institute to increase other activities related to its mandate, the Council is proposing an increase in annual membership to \$20. Tax-deductible donations can also be made toward specific Institute activities.

Dr. R.P. Gupta resigned as Editor of the Proceedings this year as he was unable to carry out his duties while away on sabbatical. Dr. Stephen Payne has stepped in as Editor - thank you, Stephen! This year's Proceedings will be published this summer. Thank you to the Nova Scotia Museum of Natural History for its continued financial support of the Proceedings.

Under the leadership of Dr. Stan Heaps, the Council has been working to complete the Institute's collection at the Nova Scotia Public Archives. Records have not been archived for the past few decades.

To allow advertisement on the NSIS web page of the database of fungal isolates and cultures in Canada, the Council has completed the agreement with NRC, started in 1991, which grants a special licence to the Institute to distribute the database. The Council thanks Dr. Alan Taylor for his continued work with the database, voluntarily maintaining and updating it for the benefit of the Institute. Thanks also to Dr. Stan Heaps for maintaining the website.

An external accountant audited the Institute's financial records this year since an internal audit has not been carried out for several years. Annual appointment of an auditor will resume this year.

I have very much enjoyed serving as the President of the NSIS this past year and

working with the Councillors for the science community in Nova Scotia. Together we have worked toward strengthening the Institute's role in representing science and scientists in Nova Scotia. Many thanks to you all!

1999-2000 Dr. D.D. Betts, FRSC

The Nova Scotian Institute of Science, NSIS, was founded in 1862. It has continued vigorously until now, and it will continue for years to come. Once a month from October to May, this society provides free public lectures or panel discussions on various aspects of science and technology. On average once a year NSIS publishes its *Proceeding*, a scientific research journal, distributed to libraries worldwide. NSIS maintains a valuable science library within the Dalhousie Killam Library. NSIS provides financial and personal support to high school science fairs. Overall, our institute does its best to acquaint the general public in Nova Scotia with up-to-date science and its benefits to society.

In our General Meetings this year we have held five free public lectures in the Nova Scotia Museum with an average audience of fifty. Members of the NSIS Council knew that a larger general audience attends our panel discussions. Therefore we decided that the 1 November 1999 and 6 March 2000 public panel discussions would be held in the Guptill Theatre in the Dunn Building at Dalhousie University. We have been very pleased that on each occasion there was an audience of about 150. Furthermore, reporters from the *Chronicle Herald* and *Daily News* took notes and representatives from CJCH, CKDU and CBC radio stations taped the discussion for broadcasting locally and nationally. Details of our public lectures and panel discussions are given in the list of the Proceedings of the Institute.

Our finances are in excellent condition with a surplus of over fifty thousand dollars largely due to the work of our Treasurer, Dr. Donald Davies. We have thus readily supported the IUPAC Conference on Chemical Thermodynamics organized by Dr. Mary Anne White here in Halifax this summer. The 1981 By-Laws of the Nova Scotian Institute of Science have been carefully revised this year by a committee chaired by Dr. Sherry Niven, our Past President. Distribution of notices of our monthly meetings for the public has been very well handled by our new Publicity Officer, Peter Shacklock. Indeed the whole Council has worked cooperatively and vigorously this year, and in the recent past (I joined only in 1996).

I am sad to report that Dr. H. Stanley Heaps, the NSIS President 1997-98, died last June after a short illness. He was one of our Institute's most loyal and active members for many years starting half a century ago. We miss him very much. His obituary will appear in the next issue of the NSIS Proceedings, soon to appear.

Now a few words about our Proceedings. Between 1975 and 1995, there was a Volume each year with three or four parts and several hundred pages. Over the past 5 years, under 3 successive editors, only three issues have been published with a total of about 300 pages. I do not blame editors, authors or members of the Institute; I know we are all very busy and we do what we can. I do see light down the tunnel. Dr. Payne, the Proceedings Editor will send Volume 41 Part 4 to Dalhousie Graphics and thence to the printers. We should receive it in a few months. Secondly, Dr. Willison is Guest Editor of a special issue (Volume 42 Part 1) focused on deep sea corals and the August 2000 international congress on that subject. We are also concerned about our membership. Twelve years ago it was about 225, but recently it has declined to about two-thirds of that number. However, we are establishing a Membership Committee for the coming year and we expect the membership to climb again. Two longstanding

members of NSIS, Drs. Michael Falk and David Jamieson, saved us this past month from having to pay for an accountant. With Dr. Don Davies they carefully went over NSIS financial accounts and found everything in good shape. On behalf of the membership, I thank them very much for this work. Indeed I thank everyone who has played a role in NSIS this year. I have so enjoyed my role this year as NSIS President that I could even be persuaded to continue for a second year.

PROCEEDINGS

Proceedings of the Institute (1998-1999)

5 October 1998

Dr. Sara Iverson, *Department of Biology, Dalhousie University*, **Fat: An Ecological Tool**. Although "fat" may at first glance seem like a very simple, uninteresting and even negative thing, in many animal species it may be the single most important component in their life cycle - and it may even provide us with clues as to how some animals make their living in the wild. From providing insights into how fasting grey seal females transfer 23,000 calories in milk per day to their pups, to understanding how dolphins travel so efficiently, to detecting the at-sea foraging behaviour of Antarctic fur seals, fat can be a powerful study tool in understanding animal ecology.

2 November 1999

Public Funding of Research: Are we investing wisely in the future of our country? Panelists: **Dr. Bob Boyd** (*Acting Director-General of Institute for Marine Biosciences, NRC*); **Dr. Colin Dodds** (*VP Academic and Research, St. Mary's University*); **Dr. Ross McCurdy** (*CEO, InNOVAcorp*); **Dr. Michael Steinitz** (*Department of Physics, St. Francis Xavier University*); Moderator: **Dr. Dennis Stairs** (*Dalhousie Political Science; Chair of the Dalhousie Task Force on Research Policy and Administration*)

7 December 1998

Bob Grantham, *Nova Scotia Museum of Natural History*, **Dinosaurs in Nova Scotia. What happened at the Triassic/Jurassic Boundary?** Nova Scotia is world famous for a major extinction event that occurred at the Triassic/Jurassic boundary 200 million years ago. Where were we? What was living then? What dinosaurs were around? How important are our dinosaur-age creatures? What are the results of a search for the cause of this extinction-level event?

4 January 1999

New Strategies in Fisheries Management. Panelists: **Dr. Jeff Hutchings** (*Department of Biology, Dalhousie University*); **Mr. Neil Bellefontaine** (*Regional Director General, Maritimes Region, Department of Fisheries and Oceans*); **Mr. Brian Giroux** (*Southwest Nova Mobile Gear Association*); Moderator: **Dr. Martin Willison** (*Biology, Dalhousie University*)