

**NSIS COUNCIL REPORTS**  
**Reports From The Annual General Meeting, May 2019**

**AGENDA**  
**158<sup>TH</sup> ANNUAL GENERAL MEETING**

**5 pm - May 6, 2019**

**The Great Hall, University Club**  
**Dalhousie University, Halifax, NS**

1. Approval of the Minutes of the 157th Annual General Meeting of May 7, 2018
2. President's Annual Report (Tana Worcester)
3. Logo Renewal (Tim Fedak)
4. Editor's Annual Report  
(David Richardson on behalf of Peter Wells (regrets))
5. Librarian's Annual Report (Michelle Paon)
6. Treasurers Annual Report (Angelica Silva)
7. Lecture Program for 2019-2020 (Darlene Smith)
8. Excursions Annual Report (Hank Bird)
9. Student Science Writing Competition Annual Report (Hank Bird)
10. Membership Report (Dylan Miller)
11. Webmaster's Report (Patrick Upson)
12. Report of the Nominating Committee for the 2019-2020 Council  
(Sherry Niven)
13. Any Other Business
14. Adjournment

Followed by an Informal Reception at 6 pm and a Public Lecture at 7:30 pm

Ecosystem Research in the Bras D'Or Lakes - Bruce Hatcher,  
Cape Breton University

The application of ecosystem understandings to the aquatic realm is challenged by the opacity and fluidity of marine environments. Ecological tools enabled improvements in marine ecosystems, while research has improved the capacity to characterize the degree of ecological integrity and dynamics of physical-chemical-biological interactions. Dr. Hatcher summarizes these advances and draws on first-hand experiences in the Bras d'Or biosphere to consider marine ecosystem outcomes for better management of human behaviour in the oceans during the anthropogenic climate change.

**MINUTES OF THE 157<sup>TH</sup>  
NSIS ANNUAL GENERAL MEETING**

**7 May, 2018**

**Dalhousie University Club**

Council Members present: Sherry Niven (President), Patrick Ryall (Past President), Tana Worcester (Vice-President), Michelle Paon (Librarian), Angelica Silva (Treasurer), Linda Marks (Secretary), Dylan Miller (Membership Officer), Peter Wells (Editor), Richard Singer, Hank Bird (Excursions and Student Science Writing Competition Coordinator)

Members present: Robert Cook, John Young, Alan Ruffman, Judy Bird, Sheila Crain, Sally Marchand, Michael Sinclair, Jeff Turner, David Richardson

Regrets (Council Members): Tamara Franz-Odendaal, Nicole LeBlanc (Publicity Officer), Suzette Soomai (Webmaster), Alexa Kirste (Student Representative)

The President welcomed members and called the 157<sup>th</sup> Annual General Meeting (AGM) to order. The President noted that presentations would be kept short and informal and that the reports, excluding the minutes from last year's AGM, would be passed as a unit at the end of the presentations.

**1. Approval of the Minutes of the 156<sup>th</sup> Annual General Meeting of 1 May, 2017:**

Motion to accept the minutes of the 156<sup>th</sup> AGM

Moved: Tana Worcester

Seconded: Alan Ruffman

All in favour: Carried

**2. President's Annual Report (Sherry Niven):**

The President thanked the 2017-2018 Council for their work and support and noted that it was an honour to serve for a second term as President of one of the oldest learned societies in Canada.

The President described a successful series of public lectures in 2017/2018 and thanked the speakers, with special thanks to Graham Daborn for stepping in at the last minute to provide

the February lecture; the Lecture Committee; and lecture hosting venues (Museum of Natural History, Acadia University, the Halifax Central Library and Dalhousie's University Club).

The President reported that the Institute co-hosted a public lecture with the Ocean Frontier Institute in November by the 2017 recipient of the A.G. Huntsman Medal for Excellence in Marine Sciences, Dr. Jeffrey Hutchings (Dalhousie University).

The President noted that Council is planning a strategic planning session in June.

The President called on members of Council to present their reports.

### **3. Treasurer's Annual Report (Angelica Silva):**

The Treasurer noted that her reporting period was 1 April 2017 – 31 March 2018 and reported that the NSIS has 60 regular, 13 life, 5 student and 14 institutional members

As of 31 March 2017, the net worth of the NSIS was \$49,654.81 with \$12,529.08 in cash and \$37,125.73 in savings and investments. The Treasurer noted that again expenditures (\$15,832.02) exceeded revenue (\$5,367.66). The final \$5K from Dr. Alan Taylor's bequest has been distributed to Nova Scotia Libraries.

Revenue included memberships, sales of publications and a royalty payment from Access Copyright. Expenditures incurred to support science fairs, the writing competition and lectures/conference sponsorships; printing of the *Proceedings*, postage, and lecture posters and brochures.

The Treasurer reported that Robert Cook has agreed to audit the finances of the Institute. There has not been an audit for several years.

#### **Motion to approve Robert (Bob) Cook as auditor of the NSIS finances**

Moved: Angelica Silva

Seconded: Michelle Paon

All in favour: Carried

**4. Editor's Annual Report (Peter Wells):**

The Editor reported that Vol. 49 (2) 2018 of the *Proceedings* has been published in hard copy and will be digitally available (6 months following publication). Vol. 50, a special issue on marine polychaetes, is undergoing final editing.

The Editor reported that Vol. 49 contains new Instructions to Authors which are intended to reduce the time involved in the final editing of manuscripts.

The Editor thanked the Editorial Board and especially Production and Layout Editor, Gail LeBlanc for their work.

Linda Marks asked if the free access to the digital issues could be delayed to longer than 6 months (following publication of the hard copy) to possibly increase sales of the *Proceedings*.

**5. Librarian's Annual Report (Michelle Paon):**

Michelle Paon described her role as Librarian.

The Librarian reported that in 2017/2018, sales of the *Proceedings*, from the Reference and Research Services office of the Killam Library, yielded \$500.00. The *Flora* continues to sell well and with 50 copies reprinted in July 2017.

The Librarian reported that this past year 779 complimentary copies of unsold past issues of the *Proceedings* have been distributed. This give-away of over-stocked copies of the *Proceedings* (5000+) will help alleviate the space shortage at the Killam Library and will continue.

The Librarian reported that forms were submitted to Access Copyright for the 2017 repertoire payment to publishers and that a payment of \$337.03 was received.

The Librarian reported on two copyright-related issues. In November 2017 Council granted permission to Biodiversity Heritage Library (BHL) to redigitize the *Proceedings of the NSIS*. Also in November the NSIS received a request to reprint a NSIS publication on Titus Smith. Since this publication was published in 1938 and its author, Harry Piers, died 78 years ago it was determined that no formal permission from the Institute was necessary.

The Librarian reported that the NSIS has 16 institutional members and 86 exchange partners. Last year 110 publications from around the world were received from the exchange partners.

The Librarian thanked the Killam Library staff and Carol Richardson for ensuring that NSIS materials are available on the Killam Library shelves and noted that Carol Richardson, Killam Administrative Assistant, does many jobs for the Institute and expressed her appreciation for her valuable work.

Sherry Niven thanked Michelle Paon and Carol Richardson for their work, particularly for selecting appropriate past *Proceedings* for display and distribution at the lectures.

#### **6. Lecture Program for 2018-2019 – Report of the organizing committee (Tana Worcester):**

The Vice-President thanked members of the Lecture Committee: Patrick Ryall, Sherry Niven, Don Stoltz and Carol Morrison for their work and presented the report of the committee.

**Oct 1, 2018 – Jeff Hutchings** (Dalhousie University)  
Distinction between Advice and Advocacy in Science

**Nov 5, 2018 – Shelley Adamo** (Dalhousie University)  
Zombies in the natural world: how a parasitic wasp hijacks the brain of its caterpillar host

**Dec 3, 2018 – Bruce Ewert** (L'Acadie Vineyards)  
Organic and Natural Wines and the Role of Science

**Jan 7, 2019 – Noni MacDonald** (Dalhousie University)  
MicroResearch in the Nova Scotian Context: how approaches used successfully in East Africa may help to address health issues in Nova Scotia

**March 18, 2019 – Fiona Brooks** (Nova Scotia Nature Trust)  
100 Wild Islands on the Eastern Shore, NS

**May 6, 2019 – Bruce Hatcher** (Cape Breton University)  
Ecosystem Research in the Bras d'Or Lakes

Sherry Niven thanked Tana Worcester for chairing the committee and noted how challenging it is to ask lecturers to commit to participate a year in advance.

**7. Proposed Excursions for 2018-2019 (Hank Bird):**

Hank Bird reported that successful excursions took place in 2017:

- Joggins Fossil Cliffs in August 2017
- Dalhousie Planetarium in November 2017
- The Bedford Institute of Oceanography (BIO Expo 2017) in September 2017

Following a survey of the membership excursions were selected for 2018-2019:

- Labrador Castle, hike to be organized by Pat Ryall
- Otter Ponds Demonstration Forest, visit to be organized by Hank Bird
- Petroglyphs in Kejimikujik National Park, guided nature hike to be organized by Peter Wells
- Habitats & Habits of NS Birds, to be organized by Hank Bird in June 2018

A repeat of the successful The Art and Science of Making Beer, or an excursion to a vineyard may also be arranged.

Hank Bird thanked Nicole LeBlanc and Linda Marks for their assistance.

**8. Student Science Writing Competition Annual Report (Hank Bird):**

Hank Bird reported one winning paper (post graduate) and two honourable mentions (under and post graduate) were selected from 7 manuscripts. Awards were presented at the April 2018 NSIS public lecture. Hank Bird thanked the judges, Tamara Franz-Odendaal, Tom Rand, John Rutherford, Pat Ryall, Rick Singer and Don Stoltz for their work.

Sherry Niven thanked Hank Bird and the other judges for their considerable investment in this contest, reading manuscripts and providing constructive feedback to the students.

**9. Publicity Report (Nicole LeBlanc):**

No report

Sherry Niven thanked Nicole LeBlanc for her ideas and considerable work in designing posters and brochures and for promoting the Institute via social media.

**10. Webmaster's Report (Suzette Soomai):**

The Webmaster was not present but provided a written report.

Suzette Soomai reported that this has been her final term as Webmaster. In 2017-2018 she continued to provide general maintenance and updates to the website, including posting of the monthly lectures, but the website still requires a redesign which will require regular technical support to maintain and enhance its functions and update its security.

**11. Membership Officer's Report (Dylan Miller):**

The Membership Officer reported that there are currently 51 paid members. Membership includes 2 Honorary members, 11 Life members and 14 free 1 year memberships which are offered to speakers and students who enter the Writing Contest.

Angelica Silva thanked Dylan Miller for his work.

Sherry Niven noted that the Institute should focus on retaining and regaining members as well as recruiting new members.

David Richardson reminded the audience that a \$30 membership ensures that you will receive a copy of the *Proceedings*.

**Motion to accept the Annual Reports:**

Moved: Pat Ryall

Seconded: Alan Ruffman

All in favour: Carried

**12. Report of the Nominating Committee for the 2018-2019 Council (Sherry Niven):**

The President, as Chair of the Nominating Committee, asked the AGM to elect the following to NSIS Council for 2018-2019:

President	Tana Worcester
Vice-President	Darlene Smith
Past-President	Sherry Niven
Secretary	Lorraine Hamilton
Treasurer	Angelica Silva
Publicity Officer	Nicole LeBlanc
Membership Officer	Dylan Miller
Librarian	Michelle Paon
Editor	Peter Wells
Webmaster	vacant

Councillor	Tamara Franz-Odendaal
Councillor	Hank Bird
Councillor	Donald Stoltz
Councillor	Richard Singer
Councillor	Carol Morrison

There was a call for additional nominations from the floor, including the vacant position for Webmaster. There were no other nominations.

**Motion to accept the Nominations**

Moved: Michelle Paon

Seconded: Jeff Turner

All in favour: Carried

Sherry Niven thanked Pat Ryall and Tana Worcester for their work on the Nominations Committee.

Retiring from Council are Past President Pat Ryall, Webmaster Suzuette Soomai and Secretary Linda Marks. New to Council are Darlene Smith (Vice-President), Lorraine Hamilton (Secretary) and Carol Morrison (Councillor).

Pat Ryall reported that there are also several Observers on Council, returning are Kara MacPhee (Discovery Centre) and Laura Bennet (NS Museum) and new are two Science Teacher representatives, Sally Marchand (Women in Science and Engineering - WISEatlantic) and Sarah Kuehm (Bedford Academy).

**13. Any Other Business:**

Alan Ruffman reported that two prominent scientists passed away in 2018: geoscientist Dr. Clinton Milligan and vertebrate paleontologist Dr. H. B. S. (Basil) Cooke. Dr Cooke was a Life member of the NSIS.

Bob Cook regretfully reported that Dr. James E. (Jim) Stewart recently passed away. Jim Stewart was a Past President of the NSIS and long-time Editor of the *Proceedings*. Peter Wells noted that an article on Jim Stewart will be published in the next issue of the *Proceedings*.



Sherry Niven invited all present to enjoy the public lecture at 7:30 PM, following the dinner.

**14. Adjournment:**

Motion by Pat Ryall to adjourn the 157<sup>th</sup> Annual General Meeting of the NSIS at 6:04 PM.

*Respectfully submitted*

*Linda Marks*

*Secretary*

## PRESIDENT'S REPORT 2018-2019

Welcome to the Annual General Meeting for the 158<sup>th</sup> year of the Nova Scotian Institute of Science. I would like to start by thanking the 2018-2019 Council:

**Officers:** Sherry Niven (Past President); Darlene Smith (Vice-President); Lorraine Hamilton (Secretary); Angelica Silva (Treasurer); Nicole LeBlanc (Publicity Officer); Dylan Miller (Membership Officer); Michelle Paon (Librarian); Peter Wells (Editor); and Patrick Upson (Webmaster).

**Councillors:** Hank Bird (Excursions and the Student Writing Competition); Tamara Franz-Odendaal; Carol Morisson; and Richard Singer.

**Observers:** Jilian Philips (Discovery Centre); Tim Fedak (Nova Scotia Museum); Sarah Kuehm (Schools); Sally Marchand (Schools); Alexa Kirste (Student Representative).

And thank-you also to David Richardsoon, Associate Editor of the NSIS Proceedings, and all other members of the editorial board.

### Public Lectures

I'd also like to thank all the lectures in this year's lecture series for sharing their knowledge and experiences on a range of interesting topics. We had some really good talks, with excellent discussion afterwards. Unfortunately, we also some issues with weather and unforeseen events that led to a few cancellations at the last minute. We're sorry for any inconvenience this might have caused members, and we are working on a cancellation protocol to ensure greater clarity on a notification procedure.

Oct 1, 2018: Jeff Hutchings (Dalhousie University) *Distinction between Advice and Advocacy in Science.*

Nov 5, 2018: Shelley Adamo (Dalhousie University) *Zombies in the natural world: how a parasitic wasp hijacks the brain of its caterpillar host.*

Dec 3, 2018: Bruce Ewert (L'Acadie Vineyards) *Organic and Natural Wines and the Role of Science.*

Jan 7, 2019: Noni MacDonald (Dalhousie University) *MicroResearch in the Nova Scotian Context: how approaches used successfully in East Africa may help to address health issues in Nova Scotia.*

March 18, 2019: Fiona Brooks (Nova Scotia Nature Trust) *100 Wild Islands on the Eastern Shore, NS.*

May 6, 2019: Bruce Hatcher (Cape Breton University) *Ecosystem Research in the Bras d'Or Lakes.*

NSIS extends thanks to the Museum of Natural History for hosting most of the lectures this year, and thanks to the Halifax Convention Centre for hosting our November lecture, which was held there to coincide with STEMfest activities.

The Institute provided support for a number of other public lectures, including 2 panel discussions in the Science in Public Life series, a lecture by the A.G. Huntsman Award recipient for 2018, Dr. Terry Hugues, and a lecture by Dr. Scott of the hit children's TV series "The Dinosaur Train" on May 8th.

### **Other Activities**

Information on other activities during the year (excursions, the Proceedings, the student writing contest, website, publicity, and sponsorship) are detailed in other reports. Many thanks to all members who have contributed to the success of these activities.

### **Looking to the Future**

This year, the NSIS Council held a Strategic Planning meeting on February 16, 2019. This session provided an opportunity for discussion of the future of the NSIS, and what might be done to increase participation in our various activities and continue to ensure that our activities are fulfilling the NSIS mandate. The minutes and action plan arising from this meeting are included here.

### **Introduction: Excerpts from an address to the NSIS on the occasion of its 100<sup>th</sup> birthday in 1962, by C.B Ferguson.**

"It is natural on a birthday to look to the future. Some planning for the future is essential in all endeavours but it is a great mistake to make plans that are too elaborate and detailed. It is not right to plan for everything that it may seem necessary to do; it is wiser to plan to do everything that is necessary as it arises. This leaves a person or an organization in a state of perpetual readiness to take advantage of whatever means are available to meet his or its immediate needs. To this end it is helpful to be flexible in attitude, every ready to respond

to the necessity for change. This is one aspect of the true scientific spirit and we should bring this spirit to our Council meetings... “

“First we have to seek clearly what our goal is before we can pursue it with selfish devotion. We must discover our essential self, lay it bare, and then foster it delicately and with loving care. The fact that our Institute has an essential self, and that this self has in some measure been well served, is indicated by observing that we have survived for one hundred years. No institution that fails to meet a need will last this long. It is not too easy to cut away cant and pomposity and see the true basis on which our permanence lies. Sometimes we claim that we are fostering this, promoting that, pursuing the other thing, and such meaningless phrases; however I suspect that what really keeps us going is that we enjoy each other’s company, we respect each other’s ability, we are proud of each other’s success, and that we value the chance to talk to each other about our work, to have it criticized and discussed in a friendly spirit. This is a perfectly sound basis for a successful society provided the topics discussed are important and relevant to a certain number of those present at each meeting.”

### **Objectives of NSIS**

According to the NSIS Bylaws, “The objectives of the Society are to represent and promote science. This is done by holding regular public meetings, by publication of work in its *Proceedings*, by maintaining a library of journals and databases, and a website which includes a Hall of Fame.”

We currently represent and promote science to Nova Scotians by:

- Archiving, Communicating and Celebrating the History of NS Science. For example:
  - Publication of the Proceedings.
  - Maintaining a library of journals.
  - Posting of historical material on the NSIS website, including the Wall of Fame.
- Building a Stronger NS Science Community. For example:
  - Holding monthly meetings of the NSIS Society.
  - Organizing events for our membership, including excursions and lectures.

- Promoting Science Literacy in Nova Scotia. For example:
  - Advertising science lectures, panels, and other events through the NSIS distribution list.
  - Writing of editorials and articles within the Proceedings.

### **Our Strengths**

- Our long history. We have been in operation since 1962.
- Committed council members and broad membership base. We build from our strengths and interests, with regular monthly meetings where we come together in person to guide and support the NSIS.
- Multi-disciplinarity. We bring together people and activities from a range of disciplines.
- Proceedings. A high quality publication that includes peer review, is Open Access after 6 months, is accessible and inexpensive to publish in, and provides articles of interest to Nova Scotians.

### **Our Challenges**

- Attracting new membership
- Ensuring sustainability of incoming funds
- Establishing a sustainable way forward for the Proceedings
- Maintaining consistent attendance at lectures
- Adapting to changes in how people communicate
- Adapting to changes in use of technology
- Reflecting the full diversity of the science community in Nova Scotia

### **Action Plan**

The 2018-2019 NSIS Council agreed to strengthen our Strategic Vision and develop a corresponding Action Plan to present at the 2019 AGM. This follows:

**Proposed activities to “Archive, Communicate and Celebrate the History of NS Science”**

Proceedings	Develop ways to make content more accessible to a public audience
	Re-post material on other social media outlets (e.g. Twitter)
	When new Proceedings are published, organize informal events for members to encourage discussion/feedback
	Initiate succession planning
	Establish new approach for monitoring of the Proceedings mailbox.
	Survey past authors, board members, and members to provide suggestions for the future.
	Collect use statistics.
Website	Update out-of-date material on website (e.g. list of council members).
	Work with graphic designers to redesign NSIS website (e.g. as part of a class project).
	Add council profiles to the website.
	Periodically spotlight NS scientists on the NSIS website, including profiles and links to publications, and encourage them to become members of the NSIS.
Educational materials	Develop new educational materials on the history of NS Science, and share materials with schools.

**Proposed activities to “Promote Science Literacy in Nova Scotia”**

Lecture Series	Remain open to the public, with topics of broad public interest.
	Include emerging as well as established scientists.
	Explore other lecture locations, to expand geographic accessibility.
	Post lectures on the NSIS website, to make them accessible to a wider audience.
Public Engagement	Do more family events, e.g. “Science for the Whole Family” event held previously at Dalhousie University.
	Host conferences or panel discussions issues of interest to a broad public audience, e.g. on adaptation to a digital world or climate change adaptation. What does science tell us about this?

Communication	Periodical electronic NSIS newsletter (e.g. twice per year) of topical short science communication pieces about NS based research.
	Web-based links to what's happening in science (e.g. current news).
	Include more visual elements in our communications materials.
	Photo/artwork contests.
	Make better use of social media to communicate NSIS activities (e.g. sharing of pictures of NSIS activities).

### Proposed activities to “Build a Stronger NS Science Community”

Attracting New Members	Create a better membership package, including promotional material.
	Council members to actively reach out to their work and social networks.
	Send reminders to regular members who haven't renewed their membership.
	Make joining NSIS easier, e.g. ongoing work on web-based membership form and payment.
	Enhance advertising of events and lectures to membership.
	Engage membership more fully in organization of events and excursions.
Community-Building Events	Organize panel discussions on topics of interest to existing members and potential new members.
	Organize workshops on topics such as, communicating science.
	Organize more social events for members, e.g. informal wine and cheese events.
	Remind members that they are welcome to participate in council meetings.
	Give incoming members more of an active role in the planning and development of NSIS.
Training or Capacity-building Activities	Hold workshops, e.g. how to organize a panel discussion.
	Conduct training activities, e.g. media training, scientific writing, how to navigate social media.

Networking	Complete inventory of other existing science-based groups and societies in NS.
	Develop and distribute a questionnaire to other science-based groups to determine possible linkages and opportunities for mutual benefit.
	Describe key council activities at the beginning of public lectures.
	Make better use of partnerships with other science-based groups to co-host activities, and continue to provide advertising and promotion of other science-based events and activities of interest to members.
Enhancing Diversity	Better engage with communities currently under-represented in NSIS, e.g. through lectures, workshops and outreach.
	Survey incoming young members about what they hope to gain from membership in the NSIS and what they hope to offer. Use that feedback to shape the activities of the NSIS.
	Consider mentorship opportunities for junior scientists to help match them with an educational pathway that suits their interests and future career aspirations or to help them discover interests/fields in science that they may not be aware of. Example: drop in Q&A sessions with top NS scientists about their career pathways.

*Respectfully submitted*

*Tana Worcester*

*President*



**TREASURER'S REPORT 2018-2019**  
**NOVA SCOTIAN INSTITUTE OF SCIENCE**  
**April 1, 2018 - March 31, 2019**

**ASSETS** as March 31, 2019

Bank Account BMO (as of March 31, 2018)	8,910.26
Investments (as of March 31, 2018)	32,901.83

**TOTAL ASSETS:** **\$41,812.09**

**INVESTMENTS** (as of March 31, 2019)

Renaissance High Interest Savings Account (March 29, 2019) @1.0%	4,158.29
Equitable Bank GTD Investment Cert CA @ 1.81% due June 17, 2019	7,162.00
Equitable Bank GTD Investment Cert CA @ 2.46% due March 09, 2020	10,262.39
Equitable Bank GTD investment Cert CA @ 2.72% due May 08, 2021	11,319.15

**TOTAL INVESTMENTS**

as of March 31, 2019 **\$32,901.83**

**REVENUES AND EXPENDITURES 2018-2019****REVENUE 2018-2019** as of March 31, 2019

Membership dues Regular	\$ 1,950.00
Membership Life	383.83
Membership Students	40.00
Membership Institutions	390.00
AGM Dinner (May 2017)	910.00
Sales NSIS Proceedings, Birds of Brier Island, Flora NS	345.00
Donations	20.00
Income/Royalties ACCESS Copyright Royalty	344.78

**TOTAL REVENUE** **\$ 4,383.61**

**EXPENSES** as of March 31, 2019

Proceedings printing/ layout PNSIS	\$ 1,785.95
NSIS Annual Brochure, Monthly Lectures	810.18
Mail PNSIS to members, NSIS postage	252.50
AGM Dinner (2017) venue, dinner	1,062.77
NSIS Lecturer dinner	44.85
NSIS Dr. Taylor's bequest contribution to NS Regional libraries	4,999.99
Lecture Sponsorships	550.00
Nova Scotia Regional Science Fairs contributions	2,600.00
NSIS 2018 Writing Competition (Undergraduate/Graduate)	750.00
Supplies office	29.93
Bank charges	42.25

**TOTAL EXPENSES** **\$ 12,997.43**

## **Finances**

The net worth of NSIS is **\$41,812.09 as of March 31, 2019** from a total of \$ 8,910.26 at BMO account plus current Investments of \$32,901.83.

For this past 2018-2019 period, NSIS had a total income of \$ 4,383.61 that resulted from all paid Memberships: regular, students, and institutions (\$2,763.83); revenue from AGM dinner (\$910), Sales of Proceedings PNSIS, Flora of Nova Scotia, Birds of Brier Island (\$345), donations (\$20), Copyright Royalties ACCESS (\$344.78).

Total expenditures of \$12,997.43 did result from costs associated to Printing of Proceedings of Nova Scotian Institute of Science (PNSIS) (\$1,785.95 ), plus expenses related to communications and publicity that included Annual NSIS Brochures, Monthly posters (\$810.18), website with Chebucto Community Net (\$70), mailing costs of PNSIS to members (\$252.50), AGM venue and dinner (\$1,062.77), 3rd year of NSIS Dr. Taylor's bequest to NS Regional Libraries (\$4,999), Lecture Sponsorships (\$ 550), Regional Science Fairs (\$2,600), NSIS Student Writing Competition (Loay Jabre \$750), Office supplies (\$ 29.93), Bank charges (\$42.25), extra cost (\$44.85) supplies for guest lecturer).

## **Membership**

2018/2019: NSIS had a total of 68 paid memberships (n= 63 regular 2018 +2 for 2019) + n= 4 student memberships + n= 1 life membership. A total membership of n= 94 members includes Life Members n=13 from last earlier years plus an additional n=13 NSIS memberships awarded to students and lecturers. NSIS also has n=14 Institutional Members.

The Nova Scotian Institute of Science continues to dedicate all its resources towards communication and support of scientific issues relevant to all Nova Scotians as it has supported lectures, conferences, student competitions, printing of the Proceedings of the Nova Scotian Institute of Science, Regional Science Fairs and also some Field excursions to NSIS members (not in 2018). This past year 2018/2019 was the 3rd and last year of support to Nova Scotia Regional Libraries as per Dr. Alan Taylor's bequest to NSIS.

As recommended at the 2017-2018 AGM NSIS did request directly to Dr. Robert Cook to carry out and audit of the NSIS Financial Report for 2017-2018 and he did so on December 2018. Dr. Cook did indicate the following “I have found the financial information provided in the NSIS’s Treasurer Report to be accurate”. We thank Dr. Cook for his contribution and Dr. Cook’s letter will be available at the AGM 2018-2019. As a Treasurer I once again recommend that NSIS request Dr. Cook’s help with conducting an audit for 2018-2019 Financial Report.

It is recommended to renew investments at time of maturity to maintain a minimum of \$25,000 or greater level of savings to avoid extra fees.

*Respectfully submitted to NSIS AGM 2018-2019  
on May 6th, 2019*

*Angelica Silva PhD  
NSIS Treasurer  
Angelica.Silva@dal.ca*

## **EDITOR'S REPORT 2019**

**Prepared for AGM May 6, 2019**

The latest issue of the PNSIS, Volume 50, Part 1, was completed in February 2019.

It is now distributed in hard copy to members and present on the NSIS and Dalhousie University websites.

PNSIS Volume 50, Part 2, is in progress, with a number of articles submitted and in review, including one student award paper.

Once again, I sincerely thank the journal's Editorial Board for their continued excellent service to the NSIS, especially Dr. David Richardson, Assoc. Editor, and Gail LeBlanc, Copy Editor.

NSIS members are requested to submit articles related to science topics of interest to Nova Scotia and the Maritime Region.

These can include commentaries, book reviews, and suitable photographs for the covers.

It is hoped that all the annual speakers will be active members of the Institute and also support the Proceedings in this regard.

*Respectfully submitted by:*

*Peter G. Wells,  
Editor, PNSIS.  
April 21, 2019*

## LIBRARIAN'S REPORT 2018-2019

Prepared for AGM May 6, 2019

In my role as NSIS Librarian, I communicate with NSIS journal exchange partners from around the world and oversee the receipt of partner journals. I also work with Dalhousie Libraries' staff members in the Killam Memorial Library who prepare these journals for the shelves and facilitate access to the online *Proceedings of the Nova Scotian Institute of Science*.

### ***Proceedings of the Nova Scotian Institute of Science***

During 2018/2019, sales of the *Proceedings* from the Killam Library's Reference & Research Services office generated \$195 in revenue (see Appendix A). Many thanks to NSIS member Eric Mills and Killam Library Administrative Assistant Carol Richardson for bringing copies of *Birds of Brier Island* (v. 46.1) to Wally DeVries (R.E. Robicheau Ltd.) of Brier Island, who has been selling the publication to island visitors for several years. NSIS now has contact information for Mr. DeVries and will be able to send him replacement inventory as needed. NSIS sent complimentary copies of the most recent issue of the *Proceedings* (49.2) to Library & Archives Canada, the Library of Congress, and several indexing services.

In the fall of 2018 Geoff Brown at the Dalhousie Libraries confirmed that digital object identifiers (DOIs) have now been assigned to all of the online issues of the *Proceedings of the NSIS* that have been published on the Open Journal System (OJS) platform. For each new issue, the DOIs will be automatically generated.

### **Distribution of Overstock Issues of the Proceedings**

During the year, NSIS distributed 294 complimentary copies of the *Proceedings* (see Appendix B) from the overstock inventory stored in the Killam Library. NSIS will continue to give away overstock copies of the journal during the upcoming lecture season. This initiative has continued to prove successful. Distribution details are provided in the table below:

### **Access Copyright**

During the summer of 2018, the NSIS Librarian submitted the required forms to Access Copyright for the repertoire payment to publishers. NSIS subsequently received a payment of \$344.78.

### **Institutional Members and Exchange Partners**

The NSIS renewal invoices were sent to institutional partners, eleven of which have renewed their subscriptions. There are currently 15 institutional members and 85 NSIS exchange partners. In February 2019, one institutional member cancelled its membership: the Fisheries and Oceans Canada Biological Station Library at St. Andrews, NB. In addition, several exchange partners communicated changes to their programs. In May 2018, the Zentralbibliothek Zurich notified NSIS that they would be terminating their publication exchange program “for reasons of operations and human resources”. This exchange included the publications *Vierteljahrsschrift der Naturforschenden Gesellschaft*, and the *Neujahrsblatt der Naturforschenden Gesellschaft*. In April 2018, the Museum of Comparative Zoology (MCZ) at Harvard University alerted NSIS that its publications *Breviora* and *Bulletin of the Museum of Comparative Zoology* are freely available on the internet. In light of this news, NSIS Council agreed to discontinue the print exchange of journals with this partner.

### **NSIS Exchange Journal Collection**

NSIS receives journal issues from exchange partners around the world. As an example, from

April 2018 to March 2019, 104 journal issues and society publications were delivered to Dalhousie’s Killam Library from the Institute’s exchange partners. These items have been processed and added to the NSIS collection in the library.

On behalf of NSIS, I would like to thank the Killam Library’s Administrative Assistant Carol Richardson and the Dalhousie Libraries’ Resources staff, who process the exchange journals and make them shelf-ready.

*Report respectfully submitted by:*

*Michelle Paon, NSIS Librarian  
May 1, 2019*

## APPENDIX A

**Proceedings sold by Killam Library Reference & Research Services Office (April 2018 – March 2019)**

<b>Date (2018-19)</b>	<b>Volume/Issue of <i>Proceedings of the Nova Scotian Science Journal</i></b>	<b># Sold</b>	<b>Price</b>	<b>Amount Received (\$)</b>
August	Birds of Brier Island (v.46.1)	8	\$15.00	\$120.00
October	Birds of Brier Island (v.46.1)	5	\$15.00	\$ 75.00
Total		13	—	\$195.00

## APPENDIX B

**Distribution of Complimentary Copies of the Proceedings (Apr. 2018 – Mar. 2019)**

<b>Date</b>	<b>Event</b>	<b># Copies distributed</b>
April 2018	NSIS Lecture – Central Library	24
May 7	NSIS AGM /dinner / lecture	15
Sept. 17-23	Science Literacy Week (Dalhousie Libraries - Killam Library)	69
October	Giveaways – Dalhousie Libraries – Killam Library	38
October	Giveaways – Dalhousie Libraries - Sexton Library	18
March 2019	Giveaways – Dalhousie Libraries – Killam Library	130
	Total distributed during April 2018 to March 2019:	294



## WEBMASTER'S REPORT AGM MAY 2019

**Period of: 2019 September 1st - May 4th**

### **Work completed:**

1. General maintenance of the NSIS website.
  - a. Refactored Menus to add 2018-2019 heading
  - b. Pushed 2017-2018 headings into the Public Lectures > Previous Lectures menu
  - c. Add all 2018-2019 lectures to the website
  - d. Updated monthly lecture series for October to April
  - e. General web content updates
    - i. Link updates
    - ii. Updated the wordpress theme for the site to Graphene 2.0, this gives the site a slightly more modern look
    - iii. The site is now using the built-in social media links and is displayed in the bottom right footer of the page instead of as a custom menu added to the right side menu
2. Looking into new web hosting
  - a. We looked into moving to a new webhost for better service, but opted to stay with Chebucto net.
3. Online membership and payments
  - a. Partly complete
    - i. Resolved technical issues connecting Paypal to NSIS website
    - ii. We have a paypal account and it is connected to a button on a membership form on the NSIS website.

### **Work in progress:**

1. Online membership and payments
  - a. Require NSIS member to check Paypal account setup
  - b. Require NSIS Treasurer to link Paypal to the NSIS bank account to move money from Paypal to the NSIS bank account.
  - c. Membership form needs to be made public once paypal information is sorted out.

**Work on hold:**

1. Seeking web designer
  - a. This is on hold while I focus on the membership form and registration pages.
  - b. I noted that in the previous report and in some e-mails it was noted that NSIS was seeking web-designer. I personally feel this is still a good idea. I am a technical person and tend to focus on functionality. Graphic design and making things look pretty is not my specialty. I would like to explore some options for offering a student a chance to undertake the task and focus on the sites aesthetics, while I work with them focusing on the functionality.

*Submitted by*

*Patrick Upson*

*Webmaster*

## STUDENT SCIENCE WRITING COMPETITION 2019

### May 2019 Report for the AGM

This year 15 students expressed interest in participating in the competition, the same as last year (see below). By the February deadline, eight students submitted manuscripts (3 undergrads and 5 postgrads), one more than last year.

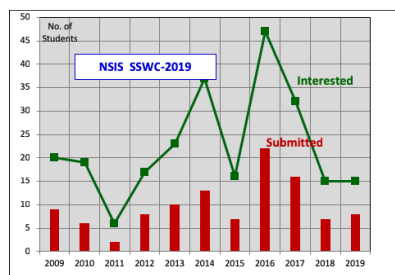
The general level of the papers was quite high this year. The judges (Sally Marchand, Tom Rand, Pat Ryall, Rick Singer, and I) read and assessed the papers and we met in mid-March to arrive at our final decisions.

The Winner in the Undergraduate category (prize of \$500) was Toren Hynes of Dalhousie University. The paper described how additions of specific small amounts of an organic material known as PDO, in combination with other materials, can significantly improve the performance – especially lifetime – of lithium-ion batteries.<sup>1</sup>

The Winner in the Postgraduate category (prize of \$750) was Joseph Tassone of Dalhousie University. The paper described an experimental study of the effectiveness of catalysts which use base metals instead of semi-precious and/or scarce metals to promote chemical reactions.

There were no Honourable Mentions this year.

Thanks to the judges for their diligence, insights, and assessments. Because the NSIS Public Lecture on April 1<sup>st</sup> was cancelled due to bad weather, the awards were mailed to the winners.



Univ.	Interest	Submitted
Acadia	0	0
CBU	0	0
Dalhousie	13	7
MSVU	0	0
SFX	1	0
SMU	1	1
NSCC	0	0
<b>Total =</b>	<b>15</b>	<b>8</b>

*Hank Bird*  
*SSWC Coordinator*

<sup>1</sup> This paper is published in this volume, 50(2): 373-392.

**NSIS EXCURSIONS 2019**  
**REPORT FOR AGM, MAY 2019**

An excursion on the Habits and Habitats of NS Birds in June 2018 was in association with the NS Birding Society and some local birding groups. It was rained out on the scheduled date but took place a week later, in early June. It thus had smaller NSIS participation but nonetheless it was a pleasant and educational outing near Brooklyn with a group of bird enthusiasts.

An excursion to the Otter Ponds Demonstration Forest was in early October 2018 and had about a dozen attendees. The enthusiastic staff gave us a thorough and interesting account of the purpose and methods of the OPDF, which is to demonstrate how a forest can be sustainably managed to provide greater long-term economic value while enhancing the ecology and biodiversity of the flora and fauna.

An excursion about the Science and Art of Making Beer was held in late April 2019 at the 2 crows Brewing Company. About 25 members and guests attended. Dr. Gordon McQuat of University of King's College gave his excellent presentation of how beer-making and science have influenced each other, and society, over the millennia. The lecture was followed by an interesting description and tour of the brewery.

We are currently working on the following possible excursions for the rest of 2019:

- Petroglyphs and Guided Nature Hike (Kejimikujik N.P.)
- Discovery Centre (incl. behind the scenes) (Halifax)
- Geological Museum + Tidal Power Exhibit (Parrsboro)

We are holding the following in reserve, likely to take place in 2020:

- Cape Split Nature Hike (Scots Bay)
- Waterfalls of Nova Scotia (various sites)
- NS Museum of Industry (New Glasgow)

For the record, we did eight excursions in late 2016 and 2017:

- Natural History of McNab's Island
- Annapolis Royal Historic Gardens
- The Science and Art of Making Beer
- Burke-Gaffney Observatory
- Joggins Fossil Cliffs
- Shubenacadie Canal
- Bedford Institute of Oceanography
- Dalhousie Planetarium

*Hank Bird*

*Excursions Coordinator*

## **NSIS 2019-2020 PUBLIC LECTURES**

The lecture series committee proposes the following line-up for the 2019-20 series. Titles and abstracts will be available by the end of May.

### **October 7, 2019**

Dr. John M. Kennedy. Drawings of the Blind and the Sighted

### **November 4, 2019**

Jonathan Ferrier. Indigenous Food, Medicine, and Material Security

### **December 2, 2019**

Sean Haughian. Lichens in Nova Scotia: an overview of lichen diversity, conservation, and current research

### **January 6, 2020**

Kevin Hewitt. Science outreach including Imhotep's Legacy Academy

### **February 3, 2020**

Maryanne Fisher. Human Sexuality

### **March 2, 2020**

Craig Brown. Sea-floor imaging and its applications

### **April 6, 2020**

Dr. John Calder. Big Footprint: Humanity's Role in Global Environmental & Climate Change

### **May 4, 2020**

Sarah Wells. Strength and Potential of Women's Hearts

**MEMBERSHIP OFFICER REPORT**  
**REPORT FOR AGM, MAY 2019**

By the end of the 2018-2019 year, we had:

89 total members (up 11 from last year)

8 from the student writing competition (up 3 from last year)

5 from speakers (down 3 from last year-several were already members) 2 Honorary members (no change from last year)

11 lifetime members (no change from last year)

63 paid members (up 12 from last year)

We continued our policy of offering free 1-term memberships to both speakers and the students who submit for the writing competition.

As part of our organization's move into the future, we are working on adding the ability to become a member to our website in a fully-online process.

*Dylan Miller*

## PUBLICITY OFFICER REPORT

### REPORT FOR AGM, MAY 2019

#### Facebook

Total Page Likes: 389, increase of 124 new followers this year (2018 = 265) Top Post: Fiona Brooks live lecture (see below):

**Performance for Your Post**

---

**1,418** People Reached

---

**335** 3-Second Video Views

---

**25** Reactions, Comments & Shares 👤

<b>15</b> Like	<b>13</b> On Post	<b>2</b> On Shares
<b>1</b> Love	<b>1</b> On Post	<b>0</b> On Shares
<b>1</b> Haha	<b>1</b> On Post	<b>0</b> On Shares
<b>6</b> Comments	<b>4</b> On Post	<b>2</b> On Shares
<b>2</b> Shares	<b>2</b> On Post	<b>0</b> On Shares

---

**60** Post Clicks

<b>18</b> Clicks to Play <small>👤</small>	<b>1</b> Link Clicks <small>👤</small>	<b>41</b> Other Clicks <small>👤</small>
--	--	--

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**NEGATIVE FEEDBACK**

<b>0</b> Hide Post	<b>0</b> Hide All Posts
<b>0</b> Report as Spam	<b>0</b> Unlike Page

Reported stats may be delayed from what appears on posts

#### Student Writing Competition

- Poster Re-designed
- Printed and distributed
- Boosted post advertised the poster with target to students aged 18-25 in HRM
- Visual promoted via Facebook (see post statistics next page)

Notes:

1. 6 Post Shares
2. 1,252 people reached (up from 340 in 2018), 12 post likes (up from 3 in 2018)  
*(see next page)*



## VISUAL / POSTER

**Performance for Your Post**

---

**557** People Reached

---

**10** Likes, Comments & Shares [?](#)

<b>3</b> Likes	<b>2</b> On Post	<b>1</b> On Share
<b>1</b> Comments	<b>0</b> On Post	<b>1</b> On Share
<b>6</b> Shares	<b>5</b> On Post	<b>1</b> On Share

---

**41** Post Clicks

<b>16</b> Photo Views	<b>0</b> Link Clicks <a href="#">?</a>	<b>25</b> Other Clicks
-----------------------	--	------------------------

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**NEGATIVE FEEDBACK**

<b>1</b> Hide Post	<b>0</b> Hide All Posts
<b>0</b> Report as Spam	<b>0</b> Unlike Page

## BOOSTED POST

**Performance for Your Post**

---

**1.5K** People Reached

---

**1.2K** Second Video Views

---

**10** Comments & Shares [?](#)

<b>2</b> On Post	<b>0</b> On Shares
<b>0</b> On Post	<b>0</b> On Shares
<b>0</b> On Post	<b>0</b> On Shares

---

**10** Post Clicks

<b>10</b> Play <a href="#">?</a>	<b>0</b> Link Clicks <a href="#">?</a>	<b>0</b> Other Clicks <a href="#">?</a>
----------------------------------	--	---

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**FEEDBACK**

<b>1</b> Hide Post	<b>0</b> Hide All Posts
<b>0</b> Report as Spam	<b>0</b> Unlike Page

## Lecture Events on Social

Interest garnered from the 100 Wild Islands on the Eastern Shore talk really put NSIS on the map. You'll see a drastic increase in likes, post engagements, and event interest since the March talk, affecting all other events held after.

Event Image	Event Title	Status	Reactions	Comments	Shares
	Lakes Dalhousie University Club Mon May 6, 7:30pm	Boost Event	6.3K	333	63
	Unama'ki Institute of Natural Resources. Use of Science and Two-eyed... Museum of Natural History Mon Apr 1, 7:30pm	Not boosted	11.4K	417	92
	100 Wild Islands on the Eastern Shore, NS Museum of Natural History Mon Mar 4, 7:30pm	Not boosted	26.3K	992	27
	Sable Island: A Monitoring Platform for Marine Pollutants 1747 Summer St Mon Feb 4, 7:30pm	Not boosted	3.6K	140	69
	MicroResearch in the Nova Scotian Context: how approaches used... Museum of Natural History Mon Jan 7, 7:30pm	Not boosted	561	16	7
	Organic and Natural Wines and the Role of Science Museum of Natural History Dec 3, 2018, 7:30 PM	Not boosted	1K	27	11
	Zombies in the Natural World: How a Parasitic Wasp Hijacks the Brain of... Museum of Natural History	Not boosted	906	15	9

**Event Brite**

A website that promotes local events. This has been a great platform to recruit event attendees and advertise our NSIS Facebook page and website.

Website: [www.eventbrite.ca](http://www.eventbrite.ca)

**Print Promo**

- Monthly Event Posters (distributed around HRM)
- Student Writing Competition posters & visuals (via Social Media)

**Email Requests to Promote Event Lectures**

- Sent monthly to *Metro News*, *The Coast*, and *The Herald*

*Submitted by*

*Nicole LeBlanc*

**NOMINATIONS FOR NSIS COUNCIL  
2019-2020**

President	Tana Worcester
Vice-President	Tamara Franz-Odendaal
Past-President	Sherry Niven
Secretary	Lorraine Hamilton
Treasurer	Angelica Silva
Publicity Officer	Nicole LeBlanc
Membership Officer	Dylan Miller
Librarian	Michelle Paon
Editor	Peter Wells
Webmaster	Patrick Upson
Councillor	Hank Bird
Councillor	Alan Ruffman
Councillor	Richard Singer
Councillor	Darlene Smith
Councillor	Carol Morrison

**NOVA SCOTIAN INSTITUTE OF SCIENCE**

**MEMBERSHIP FORM 2020-2021**

Please fill out and make copy, then forward in mail together with membership fee.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone: H \_\_\_\_\_ W \_\_\_\_\_

Email: \_\_\_\_\_

**Memberships (please check one):**

Regular member      \$30    \_\_\_\_\_

Student member      \$10    \_\_\_\_\_

Life membership      \$300    \_\_\_\_\_

Enclosed is cheque for \_\_\_\_\_ to cover dues for \_\_\_\_\_ years.

Voluntary Donation (Tax receipt will be issued): \_\_\_\_\_

**Mail to:**

Attention: Treasurer, Nova Scotian Institute of Science  
c/o Reference and Research Services  
Killam Memorial Library | 6225 University Avenue  
PO Box 15000 | Halifax, NS Canada B3H 4R2