



Science Atlantic | Science Atlantic | Atlantique

Fall 2019 Leadership Meetings

Friday-Saturday, November 15-16, 2019

KC Irving Centre
Acadia University, Wolfville, NS

Final Schedule (confirmed Nov. 14, 2019)

Annual Members Meeting (All Welcome)

Friday, November 15

3:30 pm	Reception (Garden Room - main floor)
4:00 – 5:00 pm	Science Atlantic Annual Members Meeting (Acadia Room - upstairs)
5:00 – 5:30 pm	Presentation: Update on NSERC's new Research Partnership Grant Gordon Deveau, NSERC Deputy Director (Acadia Room - upstairs)

Leadership Meetings

Friday, November 15

5:30 – 6:30 pm	Institutional Representatives (Deans or equivalent) Onboarding Session* (Meeting Room - upstairs) facilitated by Amanda Cockshutt (MtA) Dean/Institutional Representative, Board Director; and Christian Lacroix (UPEI) former Dean, Board Chair *Institutional Reps: Dinner on your own
5:30 – 8:45 pm	Committee Chairs Dinner and Meeting (Acadia Room - upstairs) facilitated by Marcia English (StFX); Nutrition and Foods Chair; Michelle Gray (UNB-F) Environment Chair; and Mel Schriver (Crandall) Chemistry Chair

Saturday, November 16

*All sessions following the continental breakfast take place in the KCIC Classroom on the ground floor

8:30 – 9:00 am	Continental Breakfast (outside Acadia Room)
9:00 – 10:30 am	Leadership Session <ul style="list-style-type: none">• Report from the Committee Chairs• Strategic Plan: breakout session on the three strategic pillars and their subcommittees
10:30 – 10:45 am	Coffee Break
10:45 – 12:15 pm	Workshop: High Impact Practices (HIPs) – How might we better adapt and integrate these in the sciences? Dr. Anne Marie Ryan, Dalhousie University, University Teaching Fellow, Earth and Environmental Sciences; 3M National Teaching Fellow; Faculty Associate, Centre for Learning and Teaching
12:15 pm	Closing and Brown Bag Lunch
12:30 – 1:30 pm	Science Atlantic Board Meeting (Board Members only)



Our Mission

The mission of Science Atlantic is to advance post-secondary science education and research in Atlantic Canada by:

- Providing opportunities that foster and enrich students
- Supporting and inspiring researchers and educators
- Using our collective voice to address important regional science issues



Acadia University Campus Map and Parking Information



Parking: Thursday evening: free to park in any designated lot (not parking meters).
Friday daytime: park in the marked Free Lot (see campus map) beside Crowell Tower.
Saturday: free to park in any designated lot (not parking meters).



Table of Contents

Our Mission	2
Acadia University Campus Map and Parking Information	3
Meeting Participants	5
Science Atlantic Institutional Reps Onboarding Session	6
November 15, 2019	6
Science Atlantic Committee Chairs Meeting	8
2018-2022 Approved Strategic Plan	10
Functional Committees	17
<i>Strategic Planning Committee</i>	<i>17</i>
<i>Pillar 1: Sustainable and Inclusive Governance</i>	<i>17</i>
<i>Pillar 2: Partnership and Community</i>	<i>19</i>
<i>Pillar 3: Leadership and Empowerment</i>	<i>19</i>
Teaching and Learning Workshop	21
<i>Workshop details</i>	<i>21</i>
<i>Biography</i>	<i>21</i>
Committee Reports	22
<i>Aquaculture & Fisheries</i>	<i>22</i>
<i>Biology</i>	<i>23</i>
<i>Chemistry</i>	<i>24</i>
<i>Computer Science</i>	<i>25</i>
<i>Earth Science</i>	<i>26</i>
<i>Environment</i>	<i>27</i>
<i>Mathematics and Statistics</i>	<i>28</i>
<i>Nutrition and Foods</i>	<i>30</i>
<i>Psychology</i>	<i>31</i>
<i>Physics and Astronomy</i>	<i>32</i>
Special Committee Reports	33
<i>Experiential Learning</i>	<i>33</i>
<i>Hall of Fame</i>	<i>33</i>
<i>Psychology Article Bank</i>	<i>33</i>
<i>Women in Science Tour</i>	<i>34</i>



Meeting Participants

Christian Lacroix	Chair	UPEI
David McCorquodale	Past Chair	CBU
Robert van den Hoogen	Chair Elect	StFX
Petra Hauf	Treasurer (outgoing)	UNB-SJ
Alain Joseph	Director Elect, Institutional Representative	NSCC
Amanda Cockshutt	Director, Institutional Representative	MtA
Travis Fridgen	Director, Institutional Representative	MUN
Mel Schriver	Director, Chemistry Committee Chair	Crandall
Marcia English	Director, Nutrition and Foods Committee Chair	StFX
Michelle Gray	Director Elect, Environment Committee Chair	UNB-F
Brent Myron	Director, Community-at-Large	MUN
Jennifer Stamp	Director Elect, Community-at-Large	Dalhousie
Ann Fox	Institutional Representative	StFX
Caroline Brunelle	Institutional Representative (alternate)	UNB-SJ
Carrie Dawson	Institutional Representative	MSVU
David Gray	Institutional Representative	Dalhousie
Gary Saunders	Institutional Representative	UNB-F
Jon Ohlhauser	Institutional Representative	Crandall
Lori Francis	Institutional Representative	SMU
Nola Etkin	Institutional Representative	UPEI
Pandurang Ashrit	Institutional Representative	UdeM
Rick Pierrynowski	Institutional Representative	CBU
Susan Machum	Institutional Representative	STU
Suzie Currie	Institutional Representative	Acadia
Trevor Avery	Aquaculture and Fisheries Committee Chair	Acadia
Owen Kaser	Computer Science Committee Chair	UNB-SJ
Peter Williams	Physics and Astronomy Committee Chair	Acadia
Russell Easy	Biology Committee Chair	Acadia
Alexandra Arnott	Earth Science Committee Representative	Dalhousie
Caroline Cochran	Mathematics and Statistics Committee Representative	Acadia
Stephanie Jones	Psychology Representative	Acadia
Jeff Hooper	Past Institutional Representative	Acadia
Nelson O'Driscoll	Environment Committee Member	Acadia
Sukhinder Kaur Cheema	Nutrition and Foods Member	MUN
Jason Clyburne	Past Chemistry Committee Representative	SMU

Staff/Other

Gordon Deveau	Deputy Director	NSERC
Lois Whitehead	Executive Director	Science Atlantic
Patty King	Finance Officer	Science Atlantic
Michelle McPherson	Program and Membership Support Officer	Science Atlantic
Anne Marie Ryan	Teaching Fellow in Earth and Environmental Sciences	Dalhousie University



Science Atlantic Institutional Reps Onboarding Session

November 15, 2019

Facilitators:

Amanda Cockshutt (MtA) Dean/Institutional Representative, Board Director
Christian Lacroix (UPEI) former Dean, Board Chair

- Purpose of Science Atlantic
- Your Role
 - Institutional Reps Pledge (see over)
 - Membership Code of Conduct
 - Student Support Philosophy
 - Participating in Functional Committees
- Overview of Host Institution's Role in Conferences
- Other Topics
 - Relation to Canadian Deans of Science
 - Discussion

Resources:

- Membership Code of Conduct and Student Support Philosophy: <https://scienceatlantic.ca/about/policies/>
- Functional Committees: <https://scienceatlantic.ca/proposed-committees/>

Contact info:

- Board, Institutional Reps, Committee Chairs: <https://scienceatlantic.ca/about/boardmembers/>
- Staff: <https://scienceatlantic.ca/about/contact-us/>
- Membership directory: <https://scienceatlantic.ca/membership-directory/>



Dean/Institutional Representatives Pledge (draft 2019)

Responsibilities:

As a Member of the Science Atlantic Governing Body:

- Support the mission and activities of Science Atlantic.
- Adhere to the Code of Conduct and policies of Science Atlantic.
- Stay abreast of Science Atlantic activities.
- Participate in discussion and activities that support the mission of Science Atlantic.
- Participate in the Annual General Meeting (November).
- Exercise your vote as the institutional representative for your organization with diligence.
- Act as an ambassador to share information about the organization with university administrators and potential partners and sponsors.

In Support of Institutional Committee Representatives:

- Ensure that Department Chairs are aware of Science Atlantic and the duties of their department's Science Atlantic representative.
- Ensure that Department Chairs support their Science Atlantic representative in fulfilling their Science Atlantic duties. This may include financial support for travel to conferences, recognition of time required, and recognition of service contribution.
- Ensure representatives for each relevant Science Atlantic committee are in place and that the Science Atlantic office is informed of changes. Work with Department Chairs as necessary.
- Host an annual meeting for Science Atlantic reps to explain their roles and responsibilities and to share Science Atlantic news. Consider including Department Chairs to inform them of Science Atlantic activities and the role of their department's representative.
- If necessary, work with Science Atlantic to determine a course of action regarding Member Code of Conduct issues.

In Support of Science Atlantic Conferences and Conference Organizers:

- General conference support
 - In September, distribute and post the Annual Conference poster.
 - Support students, as feasible, to attend Science Atlantic conferences held at other institutions.
- When a conference will be hosted on your campus:
 - Connect with the organizing committee as soon as possible to discuss your institution's and Science Atlantic's policies, in particular regarding legal responsibilities (such as when signing contracts with suppliers).
 - Review conference budgets and provide feedback; this may positively impact the overall financial standing of the conference.
 - Help conference organizers set up a university financial account through the Dean's office.
 - Advocate for conference web spaces, meeting room spaces, and other in-kind support for hosting a conference, such as ensuring the event is covered under the institution's event liability insurance, with the support of Science Atlantic as necessary.
 - Check in with organizers periodically leading up to the conference.
 - Provide assistance (financial, advocacy, advice) in the case of a conference deficit.



Science Atlantic Committee Chairs Meeting

November 15, 2019

Facilitators:

Marcia English (StFX); Nutrition and Foods Chair

Michelle Gray (UNB-F) Environment Chair

Mel Schriver (Crandall) Chemistry Chair

Discussion:

- How would you rewrite the job description?
- What can SA do to support your committee?
- What can SA do to support your role as Chair?
- What are the top 3 priorities of your committee?

Resources:

- Membership Code of Conduct and Student Support Philosophy: <https://scienceatlantic.ca/about/policies/>
- Conference Code of Conduct: <https://scienceatlantic.ca/conferences/conferencepolicies/>
- Functional Committees: <https://scienceatlantic.ca/proposed-committees/>

Contact info:

- Board, Institutional Reps, Committee Chairs: <https://scienceatlantic.ca/about/boardmembers/>
- Staff: <https://scienceatlantic.ca/about/contact-us/>
- Membership directory: <https://scienceatlantic.ca/membership-directory/>

Committee Chair Job Description

(updated February 2016, June 2018)

Term: Two years with one possible renewal of two years

Election: By Committee members

Responsibilities:

As part of the Membership of Science Atlantic

- Support the mission of Science Atlantic.
- Adhere to the Code of Conduct and policies of Science Atlantic
- Represent the Committee to the Board, Institutional Representatives and other Committee Chairs, including when presenting special project proposals.
- Participate in discussion and activities that support the mission of Science Atlantic.
- Prepare a report of the Committee's activities for annual general meeting (November).
- Participate in periodic virtual Committee Chair meetings as business related to committees arises (2-4 per year).
- Participate in the annual meeting of the Committee Chairs (November).



For the Committee

- Convene a meeting at least once, preferably twice, a year (by the end of December and the end of June). This may be by teleconference or virtual meeting.
- Prepare and distribute the agenda in a reasonable time prior to the meetings and ensure that the minutes of the previous meeting are made available to Committee members in advance.
- Lead participation in the Committee's Virtual Commons group (reminding people to post documents to the Committee's archive, encouraging discussions by group email, etc.).
- Work with the office staff to maintain the Committee's membership and website.
- Ensure other positions on the Committee are filled and that the Science Atlantic office is informed of changes. These positions may include Vice-Chair, Secretary, Treasurer, Conference Organizer, Speaker Tour Coordinator, Programming Competition Coordinator, etc.
- Be aware of and ensure that the Committee adheres to the policies of Science Atlantic.
- Share information from the organization with Committee members.
- Interact with other Committee Chairs to share best practices and ideas.

Duties related to Conferences and Conference Organizers

- Be familiar with and share Science Atlantic policies as they relate to conference delivery.
- Be familiar with and share the Conference-in-a-Box planning guide (CIAB).
- Oversee the choice of venues for future conferences.
- Ensure there is a Conference Chair from the faculty and/or a faculty advisor for the student organizing committee as soon as the following year's location is confirmed.
- Ensure that a primary contact (usually the Conference Chair or faculty advisor) is appointed from the organizing team for interacting with your Committee, the Science Atlantic office, and student groups. The Conference Chair/faculty advisor should be the Science Atlantic Committee Representative from the host institution.
- Check in periodically with the organizers to see if they have any questions or needs.
- Six months before the conference, remind organizers to submit a progress report and draft budget (templates in CIAB) to you and the Science Atlantic office, and address any concerns.
- Ensure that award winner information is provided to the Science Atlantic office immediately after the conference so that announcements can be made and awards can be sent quickly.
- Ensure that the conference organizers follow up with a final report and financial statement one to three months after the conference (templates in CIAB).



2018-2022 Approved Strategic Plan

Background

Organization

Science Atlantic is a federally incorporated and registered charitable association for scientists, university faculty, and science students in Atlantic Canada. Originally named the Atlantic Provinces Inter-university Committee on the Sciences (APICS), and then the Atlantic Provinces Council on the Sciences, the organization has been operating since 1962.

Membership in Science Atlantic is on an institutional basis, which is currently comprised of 13 institutions and 16 campuses (Acadia University, Cape Breton University, Crandall University, Dalhousie University, Dalhousie University - Agricultural Campus, Memorial University, Memorial University - Grenfell Campus, Mount Allison University, Mount Saint Vincent University, Saint Mary's University, St. Francis Xavier University, St. Thomas University, Université de Moncton, University of New Brunswick - Fredericton, University of New Brunswick - Saint John, and University of Prince Edward Island).

Science Atlantic activities include annual conferences in ten disciplinary and interdisciplinary fields, lecture tours by notable scientists, student awards recognizing research and science communication skills, travel assistance for students to attend conferences, and managing the Atlantic Facilities and Research Equipment Database (AFRED.ca).

Staffing includes a core team of Executive Director, Science Communication Officer, Program and Membership Support Officer, and Software Developer, as well as support from various contract employees, students, and consultants in various roles depending on need and funding availability.

Science Atlantic is governed by a Board of Directors that includes the Chair, Chair Elect or Past Chair, Treasurer, three Directors representing the Institutional Representatives, three Directors representing the Committee Chairs, and two Directors representing the broader community. In addition to the Board, there are ten science committees in the following disciplines: Aquaculture & Fisheries, Biology, Chemistry, Computer Science, Earth Science, Environment, Mathematics and Statistics, Nutrition, Physics and Astronomy, Psychology. Operational committees include the Policy Oversight and Strategic Planning. Additionally, the AFRED Advisory Group brings in stakeholders from the broader Atlantic research community. Two committees, Animal Care and the Research Working Group, are currently inactive.

Mission

To advance post-secondary education and research in Atlantic Canada by:

- Providing opportunities that foster and enrich students;
- Supporting and inspiring researchers and educators; and,
- Using our collective voice to address important regional issues.



Values

Inclusivity	Collaboration	Respect
Communication	Leadership	Opportunities
Connection	Discovery	Diversity

Strategic Planning

Background

In 2010, Science Atlantic, then APICS, underwent strategic planning sessions led by facilitator Jodi Asbell-Clarke, resulting in two key outcomes. First, a discussion of whether the organization was still needed resulted in confirmation of its importance to the members and the scientific community in the region. Second, participants expressed interest in expanding from student- and teaching-focused activities to addressing current research issues, including compiling a list of significant research equipment in the region.

In the years following, the organization experienced a period of growth and several major changes. The current mission statement was established, APICS was rebranded as Science Atlantic in time for its 50th anniversary in 2012, and the organization was incorporated with an updated governance model in 2015. Additionally, rededication to current member engagement, as well as new dedication to researcher support, resulted in the formation of the Research Working Group and the Nutrition and Foods Committee. Two new services were also developed: Conference-In-A-Box (CIAB) planning resource and registration system (2013) and the Atlantic Facilities and Research Equipment Database (AFRED) (2014). Both services continue to develop.

As the organization has come into its own as Science Atlantic and these changes established into the organizational culture, it became time to reflect and assess the accomplishments of the previous seven years, as well as determine a new strategic direction and the next steps in the organization's progress. These next steps were discussed during the November 2017 Annual Members Meeting, in strategic planning sessions led by facilitator Lisa Tilly of *Uprise Consulting*. The results of these sessions are outlined in the following document.

2017 Strategic Planning

During the November 2017 meetings, a review of the mission found that while current programs meet the mission, some have fallen behind. The organization's ability to support and update CIAB and AFRED as well as the need for increased engagement with committee Chairs and members were identified as areas needing improvement for the mission to be successfully met.

It was determined that funding and lack of perceived value were the biggest challenges facing the organization, while student conferences and organizational structure were identified as the biggest strengths. Participants identified four key priorities to develop these strengths further and overcome the



challenges: a) A communication strategy to grow the Science Atlantic brand in the broader community as well as to increase member engagement, b) Diversifying and expanding membership to include non-university members, c) Diversifying funding to include sources outside the post-secondary sector, and d) Diversifying programs to expand beyond academic research to include commercial science and science leadership, education, communication, and literacy.

Strategic Planning Committee

Following the November 2017 meetings, Science Atlantic members and staff formed a Strategic Planning Committee with a mandate to develop an actionable strategic plan for the organization.

The Strategic Planning Committee met several times, both in person and virtually, from March through August 2018. During these meetings, the Committee reviewed the four strategic priorities and proposed goals. The original four priorities were refined down to three, while keeping the spirit of the original priorities identified in the November meetings.

In addition to refining the proposed priorities, the Committee used the information and ideas that emerged from the November meetings to develop 12 goals and 34 objectives that would, once achieved, result in the organization achieving the three priorities.

Creating Our Vision

In addition to identifying strategic priorities, goals, and related objectives, the Committee worked to create a vision statement and value proposition for the organization. The vision statement helps us keep in mind the future we see for ourselves, while the value proposition demonstrates the benefits of the organization to the greater community.

The Committee also addressed an issue identified during the November sessions regarding the mission statement. The proposed changes below are inclusive and are believed to more accurately reflect the current activities and direction of Science Atlantic.

Organizational values were also reviewed. Six values identified in the November 2017 meetings as well as three inherited from the 2010 strategic planning process were consolidated to three core values that reflect the motivations of the mission, organizational activities, and members.

Vision Statement

Our member-inspired organization creates opportunities for students, researchers, and others to build long-lasting collaborations and partnerships that provide the foundations needed to improve science education and scientific research, enabling the scientific community in the Atlantic region to flourish.

Value Proposition

Using our resources as a vehicle, Science Atlantic brings together the regional science community to share knowledge that helps shape and advance science and supports the next generation of scientists.



Mission Amendment

To advance post-secondary education and research in Atlantic Canada by:

- Providing opportunities that foster and enrich students;
- Supporting and inspiring researchers, educators, **and the broader scientific community**; and
- Using our collective voice to address important regional issues

Values Amendment: Top Three

Inclusion	Connection	Promotion
-----------	------------	-----------

Strategic Priorities

* Please note that numbering system is for organization only and does not reflect ranking of the priorities

** Please note that dates are approximate and may be changed due to time and funding resources available

1. Sustainable and Inclusive Governance

Maintain a sustainable and inclusive governance that embraces an engaged and diverse community and includes the resources needed to ensure the organization's future.

1.1. Secure Staffing

1.1.a. By September 2019, employ requisite staff to adequately support all core activities

1.1.b. By January 2021, put into action an adequate budget to maintain a stable, engaged, and equitably compensated core staff

1.2. Strengthen AFRED to become an integral part of the organization

1.2.a. By 2022, have AFRED generating at least \$150,000 per year

1.2.b. By the end of 2022, have at least one instance of the "AFRED Lite" widget on all applicable member institutions' websites

1.2.c. By the end of 2022, be able to demonstrate a marked increase in use of AFRED at member institutions

1.3. Ensure we have a clear understanding of who we are as an organization

1.3.a. By early 2019, create materials that define the organization, value proposition, and benefits for current and new members

1.3.b. By summer 2019, have the Science Atlantic website become the main source of information for organizational activities

1.3.c. By the end of 2019, create and promote a centralized information source for staff, members, and the greater Science Atlantic community



1.4. Increase operating budget through diversified funding streams

1.4.a. By early 2019, have a designated person or committee (maximum 3 members) responsible for non-membership funding

1.4.b. By August 2020, create funding plan that will increase the current operating budget of Science Atlantic through external funding including grants, sponsorships, fundraising, and alumni donations

1.5. Renew Science Atlantic's relationship with our members at an institutional level

1.5.a. By 2020, have a Memorandum of Understanding with each university signed by upper administration (President and/or Vice President Academic and/or Vice President Research)

2. Partnerships and Community

Cultivate partnerships inside and outside the organization that will strengthen the regional scientific community and provide opportunities for our various stakeholders.

2.1. By the end of 2022, AFRED will be expanded to include more non-member and non-academic institutions and/or organizations

2.1.a. By June 2019, have 1000 pieces of equipment in AFRED

2.1.b. By 2020, have all Atlantic colleges involved in AFRED

2.1.c. By 2021, AFRED will have the support of 5-10 government, hospital, and industrial organizations

2.2. Expand partnerships and broaden community

2.2.a. By summer 2019, begin to develop and expand relationships with organizations that provide student opportunities (such as [ASRJ](#) and [PLoSabilities](#))

2.2.b. By 2020, develop "Friends of Science Atlantic" partnership program with clear benefits for groups such as graduate schools, government, professional organizations, and those who support the general cause of science

2.3. Strengthen our internal community

2.3.a. By autumn 2019, have channels in place for recognizing member contributions to Science Atlantic (other than the Hall of Fame)

2.3.b. By 2021, have systems in place to recognize members' contributions to the scientific community

2.3.c. By end of 2022, be able to demonstrate increased engagement with member institution faculty (non-voting/community members) on a large scale



3. Leadership and Empowerment

Empower our membership community, students, and alumni to become leaders both within the organization and in the greater community.

3.1. Evolve Science Atlantic conferences to become a national standard of student academic conferences

3.1.a. By 2019-2020 conference season, develop and implement system to share conference best practices among organizers

3.1.b. By 2020, begin leveraging conferences as networking events to connect attendees to professional associations, graduate schools/potential supervisors, and employers

3.1.c. By summer 2020, develop conference metrics such as student evaluations, global and discipline specific metrics, to be shared with organizers and used for the analysis and improvement of conference support, marketing, statistics, etc.

3.1.d. By summer 2020, begin organizing value-added activities for faculty attending conferences and education workshops

3.1.e. By 2021, have conferences increase attendance and participation by diverse audiences of students and faculty from various interdisciplinary and minority groups

3.1.f. By 2021-2022 conference season, recognize broader types of contributions of student presenters (for example, those who are active in advocacy, literacy, and communication of science)

3.1.g. By 2021-2022 conference season, make conferences relevant to the broader community

3.2. Advance AFRED such that it becomes the go-to source for research infrastructure in the region

3.2.a. By spring 2019, have a marketing plan in operation for AFRED.ca

3.2.b. By June 2019, have a system in place to track metrics and partnerships created through AFRED

3.2.c. By 2020, have the AFRED logo appear on partner and supporter websites

3.3. Enhance visibility of the organization and promote the brand

3.3.a. By 2019-2020 conference season, have an increased Science Atlantic branding at conferences

3.3.b. By 2019-2020 conference season, create systems to nurture publicity about student research at conferences

3.3.c. By 2021, expand all speaker tours to include public lectures and increased Science Atlantic branding



3.4. Coordinate advocacy campaigns responding to regional science issues using our collective voice

3.4.a. By 2020, develop policy for publicly addressing issues that affect all member institutions

3.4.b. By 2021, create media channel for individuals at member institutions (commentaries such as blog posts, opinion pieces, or podcasts)

The \$5 million question

What would we do if money were not an issue?

- We would encourage/enable increased bilingual services for our activities (e.g. conferences, speaker tours, AFRED) and collateral (newsletter, website, etc.)
- We would purchase a branded vehicle whose main purpose would be science outreach. Undergraduate students involved with Science Atlantic would travel to underrepresented areas (first nations, rural, and primary schools) to promote and educate.
- We would provide support for student research by providing sponsorships, scholarships, or endowments.
- We would host annual Science Atlantic gatherings in each province to celebrate the organization, provide networking opportunities, and engage with alumni community.
- We would provide faculty training workshops focused on science education methods, as well as career development opportunities for faculty and students.
- We would partner with organizations that provide high schools with science teaching toolkits to help better prepare students for post-secondary study.
- We would have speaker tours or lectures featuring high-profile speakers.
- We would have a plan to increase indigenous outreach.
- We would commit to becoming a green organization.
- We would export the Science Atlantic model to other regions, faculties, and disciplines, encouraging these other areas of academia to have inter-university and inter-departmental relationships that support students and faculty.
- We would help in matching university departments to those in less developed countries and participate in international exchanges.
- We would be leaders in stewardship and responsible care of animals.
- We would have physical offices that would support use by members for meetings and gatherings.

Approved November 2018 at Science Atlantic Annual Leadership meeting



Functional Committees

In effort to move forward with our Strategic Plan, Creating a Culture of Opportunity, Science Atlantic is calling for participants in our new functional committees. These committees will serve to strengthen our organization, expand our reach, and propel us to the forefront of science in Atlantic Canada. Some committees are further divided into working groups, which are described below.

Strategic Planning Committee

Purpose: The Strategic Planning Committee's purpose is to assist the Board and Executive Director in setting and maintaining the strategic direction for Science Atlantic.

Functions:

- Ensuring that Science Atlantic has a current and relevant strategic plan
- Auditing the successful implementation of the plan
- Ensuring that measurable goals and objectives are established to enable assessing progress
- Making recommendations to the Board in order to achieve the goals of the plan
- On a quarterly basis, assessing the achievements and activities of the organization against the goals in the
- Preparing a brief, annual (October) written report summarizing the achievements and setbacks of the year and presenting at the annual general meeting (November)
- Updating the plan as necessary, for review by the Board, based on previous outcomes and emerging trends
- Ensuring the coordination of broader strategic planning activities every five years

Pillar 1: Sustainable and Inclusive Governance

Maintain a sustainable and inclusive governance that embraces an engaged and diverse community and includes the resources needed to ensure the organization's future.

a) Membership Committee

Purpose: The Membership Committee is responsible for ensuring the active engagement of members at both the institutional and individual level.

Functions:

Note: Most activities of this committee will require partnership with staff for both information and implementation.

- Develop and implement MOU
- Review institutional member applications and renewals (USteA, NSCC, etc.)
- Onboarding and communicating with Institutional Representatives and Committee Chairs
 - Code of Conduct
 - Position job descriptions
 - Holding members accountable
- Onboarding individual committee members (staff implementation)
 - Orientation & Code of Conduct
 - Hall of Fame/service pins criteria and nominee review (staff implementation)



b) Policy Oversight Committee

Purpose: To identify required policies, review and give feedback on draft policies prepared by staff, present new and revised policies to the Board for approval, and provide recommendations to the Board on policy decisions that go beyond the scope of the Executive Director's authority.

Functions:

- Review and revise policies drafted by the staff
- Recommend policies or edits to policies for approval by the Board
- Review existing policies no less than once every three years
- Interpret policies as requested to facilitate effective Board decision-making

Examples of duties:

- Biology Committee/Crandall inclusiveness statement – great engagement of committee members but needs governance level approval
- Approving Holding Account uses outside established policy (could be a finance committee task)
- Determining consistency between SA policies and institutional policies when applicable

c) Human Resources Committee

Purpose: The purpose of the Human Resources committee is to maximize the successful delivery of the mission through its employees and to make recommendations about appropriate job descriptions, work conditions, and compensation and benefits.

Functions:

- With the Policy Oversight Committee, establish human resources policies
- Oversee and implement human resources policies as needed
- Establish and regularly review the job description and compensation for the Executive Director
- Oversee the hiring and evaluation of the Executive Director
- With the Executive Director, review and amend job descriptions for all positions
- Recommend compensation for all positions that commensurate with duties
- Encourage professional development activities for staff
- Investigate alternative solutions for office space

d) Finance and Resources Committee

Purpose: The purpose of the Finance and Resources Committee is to ensure adequate resources to allow the organization to thrive.

Functions:

- Develop and oversee implementation of annual budget
- Ensure adequate funding for staff and other resources
- Establish income generation strategy, including:
 - Reviewing annual fee structure periodically
 - Conference surplus going back into SA operational budget
 - Developing partnerships (sponsors)
 - Fundraising/personal donations strategy



Pillar 2: Partnership and Community

Cultivate partnerships inside and outside the organization that will strengthen the regional scientific community and provide opportunities for our various stakeholders.

a) Outreach, Alumni and Student Engagement Committee

Purpose: Promote Science Atlantic at events and to networks; demonstrate the value of Science Atlantic to those outside the organization and leverage the internal Science Atlantic community, i.e. alumni and students.

Functions:

- Promote Science Atlantic at institutional events
- Promote Science Atlantic at industry/networking events
- Identify events/channels for promotion of Science Atlantic
- Work with Finance and Resource Committee on partnerships and sponsors
- Connect with Science Atlantic community to identify potential donors

Pillar 3: Leadership and Empowerment

Empower our membership community, students, and alumni to become leaders both within the organization and in the greater community.

a) Teaching and Learning Committee

Purpose: To establish a clearinghouse of best practices and initiatives for faculty and students in disciplines supported by Science Atlantic.

Functions:

- Develop new programs and tools to facilitate teaching and learning
- Plan teaching and learning workshops for faculty
- Attend annual regional science teaching and learning conferences, i.e. AAU Teaching Showcase, Dal LTC, etc.
- Conduct surveys to understand learners needs and interests

b) Conference Planning Oversight Committee

Purpose: To ensure consistent delivery of student conferences in keeping with the mission and principles of Science Atlantic; to provide suggestions and feedback to organizers, to discuss and determine solutions for issues that are outside the scope of staff decision-making authority.

Possible functions:

- Collecting and sharing best practices (e.g., planning, awards guidelines)
- Providing updated CIAB content to staff
- Encourage the development of value-added initiatives or activities that can be adopted by some or all conferences



- Ensuring judging guidelines are consistent and appropriate
- Decision making outside staff scope e.g., What aspects of Science Atlantic conference support are an option vs mandatory? (e.g., using our registration software)
- Managing a centralized student travel fund

c) Working Group on Research/Advocacy

Purpose: The Science Atlantic Working Group on Research seeks to enhance scientific research capacity and collaboration in the Atlantic region by building on the collective strengths of the Science Atlantic member institutions and the Science Atlantic committees.

Potential broader purpose: To use our collective voice to address regional science issues.

Functions:

- Advising the Science Atlantic Executive and Council on matters that may affect scientific research capacity in the region, including relationships with agencies that support research in the sciences.
- Acting as a knowledge exchange for member institutions in matters related to scientific research policy.
- Fostering multi-institutional initiatives on science research.
- Publicizing the economic and societal benefits of science research for the region, including the benefits of training highly qualified personnel.
- Inclusive of (former) Animal Care Committee
- Standardized research ethics agreement



Teaching and Learning Workshop

Facilitator:

Anne Marie Ryan (Dal)

Workshop details

HIGH IMPACT PRACTICES (HIPs)– how might we better adapt and integrate these in the sciences?

In recent years, research has identified a number of teaching practices in higher education that engage students in deeper approaches to learning. These high impact practices (HIPs) allow a diverse population of students to experience a positive and effective undergraduate education (AAAU). Among these teaching and learning approaches are first-year seminars, capstone courses, service learning, undergraduate research, internships, and international experiences, yet scaling any of these for all students can be difficult, especially in the sciences, where funding issues and larger classes are considerations, particularly in the early undergraduate years. Why these approaches are considered high impact practices is outlined by Kuh (2013), and these considerations suggest that there are a number of other ways in which we might adapt the teaching and learning environment to provide such an enriched experience for all students throughout their undergraduate years. This workshop aims to highlight significant criteria for integrating these approaches into our teaching in the sciences, allowing time for engaging in possibilities, and time for conversation around the potential impact, as well as the possible pitfalls, of such innovative approaches.

Biography

Anne Marie Ryan is a 3M National Teaching Fellow and a faculty member in the department of earth and environmental sciences at Dalhousie University. Anne Marie completed her PhD in earth sciences at Dalhousie University, following an undergraduate degree in her native Ireland, and masters degrees at Acadia (science) and Mount Saint Vincent (education). She currently teaches courses across the undergraduate years in introductory geology, environmental geoscience, and in science education as well as science leadership to senior undergraduates. She has taught or co-taught studio courses and workshops in Topics in Science Teaching and Learning, and is a frequent workshop facilitator and presenter at education conferences locally and internationally. Anne Marie's research focus is 2-fold: in the field of higher education, her focus is on geoscience and science education more broadly, with current projects in science and humanity, threshold concepts, and the contrast between novice and expert reading and working with geologic maps and other visual representations, using eye-tracking. In environmental geochemistry, her most recent focus is on metals in urban soils, commonly working with honours students and her fourth year environmental geoscience students on a variety of projects in the field.



Committee Reports

Aquaculture & Fisheries

Conference

The Science Atlantic Aquaculture & Fisheries and Biology Conference (AFB) 2019 was hosted at Crandall University on March 8-10th, 2019. There were 28 faculty and 81 undergraduate & postgraduate students in attendance. There were 23 oral presentations in Aquaculture and Fisheries, 22 oral presentations and 27 posters in Biology. It is the first time in the history of the AFB Science Atlantic student conferences that the conference abstract book was published in a journal: URCST Journal (2019): volume 3, issue 4 (<https://doi.org/10.26685/urncst.142>).

On Saturday, there were two keynote speakers: Dr. Diana Hamilton (Professor of Biology, Biology Department at Mount Allison University) was invited by the Biology Committee and gave a talk entitled "Semipalmated Sandpipers and mudflats in the upper Bay of Fundy: a tale of a critical ecological relationship in flux" on Saturday morning. Dr. Stefanie Colombo (Assistant Professor and Canada Research Chair, Aquaculture Nutrition Department of Animal Science and Aquaculture at Dalhousie University) was invited by the Aquaculture & Fisheries Committee and gave her keynote "Aquaculture: "Sea-ing" it grow - Innovations in nutrition for a productive, sustainable future" on Saturday afternoon.

AFB 2020 will be held March 14-15 at Cape Breton University.

Committee Business

The A&F committee had exceeded the \$5,000 Holding Account limit by \$2,000; however, \$3,000 was provided to the joint AFB conference to satisfy the conference budget.

Two new members joined the A&F Committee: Anne Dalziel (SMU) and Diego Ibarra (Dalhousie). As well, a couple of familiar faces have returned (David Garbary and Matt Litvak). Trevor Avery has agreed to remain chair and Jillian secretary for this coming year. The hope is to elect a new chair in 2020.

Our main goal, as it is each year, is to organize both the A&F and joint AFB conferences, fundraise, and provide awards to students.

Respectfully submitted,
Trevor Avery, Committee Chair



Biology

Conference

The Science Atlantic Aquaculture & Fisheries and Biology Conference (AFB 2019) was hosted at Crandall University on March 8-10th, 2019. There were 28 faculty and 81 undergraduate & postgraduate students in attendance. There were 23 oral presentations in Aquaculture and Fisheries, 22 oral presentations in Biology and 27 posters. It is the first time in the history of the AFB Science Atlantic student conferences that the conference abstract book was published in a journal: *URN CST Journal* (2019): volume 3, issue 4 (<https://doi.org/10.26685/urncst.142>).

On Saturday, there were two keynote speakers giving presentations during the conference. Both keynotes gave excellent presentations on their research. Dr. Diana Hamilton (Professor of Biology, Biology Department at Mount Allison University) was invited by the Biology committee and gave a talk entitled "Semipalmated Sandpipers and mudflats in the upper Bay of Fundy: a tale of a critical ecological relationship in flux" on Saturday morning. Dr. Stefanie Colombo (Assistant Professor and Canada Research chair, Aquaculture Nutrition Department of Animal Science and Aquaculture at Dalhousie University) was invited by the Aquaculture & Fisheries committee and gave her keynote "Aquaculture: "Sea-ing" it grow - Innovations in nutrition for a productive, sustainable future" on Saturday afternoon. AFB 2020 will be held March 14-15 at Cape Breton University.

Committee Business

The Biology Committee's regular fall business meeting and workshop were held on November 8-9, 2019 at Cape Breton University. The meeting was attended by 11 individuals from 10 Atlantic Canada universities. Russell Easy (Acadia) is serving in his second year as Chair of the committee and Bruce Hatcher (CBU) is Vice Chair. Stevan Springer is the new representative from UPEI.

We began the meeting on Friday evening by introducing new members followed by updates from Kellie White of CBU who has taken the lead for planning Science Atlantic 2020. The next joint conference will be held at CBU, March 13-15, 2020. This conference will include the Science Atlantic Conference. We will have three concurrent sessions and will share keynote speakers. Future conference locations were also discussed, with UPEI designated for the 2021 meeting.

Lois Murray (Dalhousie) reported on the activities of the subcommittee that was formed to discuss the value of hands-on experiences in undergraduate science education and other methods examining and/or promoting the value of these experiences. Lois and Kevin O'Shaughnessy (MSVU) will be checking on the status of this initiative with the other committee members.

During the workshop, Alyre Chiasson discussed the results of his survey on R usage in Atlantic Universities. We explored ideas on how we can serve our students better in the area of data analyses. We also questioned if 'imposing' R was the best strategy. Further to previous discussions, we asked if/when we should introduce computer literacy training for university students. Our second topic of discussion was on team teaching and identified the mosaic of approaches that each university follows. It was necessary to define team teaching as separate from co-teaching.

Respectfully submitted,
Russell Easy, Committee Chair



Chemistry

Conference

The annual student chemistry conference, ChemCon 2019, was hosted by the Acadia University Chemistry Department and organized by the Chemistry students under the leadership of Alex Hebert (Conference Chair) with faculty member Bobby Ellis providing mentorship and support. The theme of the conference was “Chemistry at Work”. The plenary speakers were: Peter W. Mullen of Kemic Bioresearch who spoke on the “The Forensic Toxicology of Alcohol” and Belinda Kemp of Brock University who spoke on “The application of chemistry in winemaking”. The Conference Chair reported that 139 students and faculty attended the conference with 70 undergraduate and graduate students from nine different member institutions making oral and poster presentations. The social highlights of the conference included a popular Trivia Night and a tour of Lightfoot and Wolfville vineyards. At the closing banquet, 16 awards were presented to students who gave exceptional presentations as assessed by a panel of faculty judges from the member institutions. In addition, the students selected Mount Allison University to be the host of the 2020 ChemCon and Saint Francis Xavier to host the 2021 ChemCon. The final conference report and financial report for ChemCon 2019 is still to be submitted but preliminary communications indicate that the conference may have run a deficit that will need to be supported from the Chemistry Committee Holding Account and the host university.

Speaker Tour

The Chemistry Committee, in cooperation with the Chemical Institute of Canada, supports an annual Speaker Tour. The 2018-19 speakers were Dr. Danielle Tokarz of Saint Mary’s University who presented her talk titled “Advances in Nonlinear Optical Microscopy” at CBU, MtA and Acadia and Dr. Aaron Kelly of Dalhousie University who presented his talk titled “photo-Induced Charge and Energy Transfer in Chemistry” at UPEI and Memorial University.

The Tour Coordinator for 2019-20 is Aaron Kelly who has arranged tours for Dr. Alison Thompson of Dalhousie University speaking on “Synthesis and manipulation of pyrrole-containing chemical species” at UNB-F, SMU and MUN and Dr. Marya Ahmed of University of Prince Edward Island speaking on “Novel Biomaterials for Health Applications” at MtA and CBU.

Committee Business

The Science Atlantic Chemistry Committee has active representatives from all 14 of the Science Atlantic member institutions that teach university chemistry. Leadership for the committee is provided by the Chair Mel Schriver (Crandall, year 2 of 2) and vice-Chair Aaron Kelly (Dalhousie, and Tour Coordinator, year 1 of 2).

The Committee has traditionally had a single, annual face-to-face meeting of the representatives at ChemCon with a Fall virtual meeting at the discretion of the Committee Executive. The ChemCon meeting this year was attended by 15 representatives from nine different Science Atlantic member institutions. The dominant topics for discussion were concerns relating to the policies and support provided by Science Atlantic to the annual student conferences and the Committee response to the Holding Account overage as reported by Science Atlantic. The Committee seeks to encourage better communication of clearer policies between the student conferences and Science Atlantic. With respect to the Holding Account overage, the Chemistry Committee recognized that the source of the funds in the account were funds returned to the Committee from various ChemCons and affirmed a



decision to transfer any funds in the Holding Account over the allowed limit to the Science Atlantic general account in recognition of the conference support provided by the Science Atlantic staff. It was additionally decided that before the transfer of funds occurred that the Committee would work in cooperation with the Science Atlantic staff to design and print Committee branded notepads to be distributed to the students attending ChemCon.

Respectfully submitted,
Mel Schriver, Committee Chair

Computer Science

Conference

The Mathematics, Statistics and Computer Science (MSCS) Conference 2019 was held October 25-27 at Dalhousie University.

Participants	Number
Faculty	43
Graduates	21
Undergraduates	153
Volunteers	7
Other	4
Total	228
Oral Presentations	44

The Sedgwick Lecture (CS) was by Jeff Shallit, U. Waterloo, “Additive Number Theory via Automata”, while the Blundon Lecture (Math) was given by Dave Kung, U. Maryland, “Harmonious Equations: An Exploration of Math & Music”. The Fields Lecture (Statistics) was given by Michael Newton, U. Wisconsin, “Bayesian Inference by Example in Computational Biology”.

This year’s conference sponsors included Dalhousie University, CGI, Science Atlantic, AARMS, ShiftKey Labs, and Morneau Shepell Ltd.

Committee Business

The Chair position has been vacant for several months, but Jim Diamond (Acadia) acted as chair from August to the end of the annual meeting. Owen Kaser (UNB-SJ) has taken that position, effective two days after the meeting. Jim Diamond chaired the meeting.

Liam Keliher (MtA) became the incoming secretary during the meeting, taking over from Jacob Levman (StFX).

- At the joint CS/Math/Stat faculty meeting, SMU accepted being the host for the 2020 conference.
- The annual programming competition, held as part of MSCS, is a preliminary round of the ICPC Northeastern North America (NENA) competition. We believe that the contest is the main reason CS undergraduates attend MSCS. Starting in 2020, NENA will no longer have preliminary rounds and will accept contestants directly for a November contest that is held



at a variety of “satellite” sites. It would be possible for MSCS 2020 to host such a site for NENA, but we would have to accept their timing, which is several weeks later than the usual MSCS date. A subcommittee with members from both CS and Math was struck to seek an acceptable solution. A joint (Math/Stats/CS) virtual committee meeting may be needed.

- MtA agreed to host the NENA satellite site for this year (November 2019) for the top five teams from the Science Atlantic contest.
- Different universities have different funding sources for getting students to the MSCS conference and programming contest, but nobody reported that students had to fundraise or pay for their own costs. With reduced budgets at several institutions, the departmental contributions are becoming a problem. Consensus seemed to be that few students would come if they had to pay or fundraise.
- The importance of having deans support their units’ participations in Science Atlantic activities was stressed.
- There may be people who should receive a 5-year service pin, but who have not.
- There was discussion of creating a subcommittee to support/steer the conference, possibly including finding sponsors. Two math faculty and one CS faculty volunteered to work on this subcommittee, with one more CS faculty member yet to volunteer.

Respectfully submitted,
Owen Kaser, Committee Chair

Earth Science

Conference

The 68th annual Atlantic University Geoscience Conference (AUGC) was held November 1-3, 2018 at Dalhousie University in Halifax, NS. During the three-day conference the student planning committee organised a meet and greet, challenge bowl, field trips, posters and presentations, and a final banquet.

There were a total of 11 talks and 17 posters presented during the conference day. Dr. Kathryn Sullivan, a Dalhousie alumna, geoscientist, and astronaut was the keynote speaker during the conference. Kathy gave an amazing speech about her adventures aided by jaw-dropping photographs and how she was able to achieve such feats.

AUGC 2019 was held at St. Francis Xavier University, October 24-26, 2019. It was a successful event that featured two field trips. A full accounting of finances and attendance is forthcoming.

Speaker Tour

Tour coordinator: Deanne van Rooyen

Speaker 1: Dr. Jennifer Day, Assistant Professor of Geological Engineering at University of New Brunswick presented her talk titled: “Where geology meets engineering in hydrothermally altered environments: considering veins in geotechnical design” at Memorial, Dalhousie and St. Francis Xavier University.



Speaker 2: Dr. Barrie Clarke, Retired Dalhousie Professor of Petrology presented the following talks:

- Forensic petrology applied to discovering the origin of the Titanic headstones (SMU)
- The origin of strongly peraluminous granites (Acadia, Igneous petrology class)
- Forensic petrology applied to discovering the origin of the Titanic headstones (Acadia, Departmental)
- The Davis Strait picrites: to plume or not two plumes, that is the question (UNB)

Committee Business

- Executive membership: Jason Loxton (Chair), Deanne van Rooyen (Speaker Tour Coordinator). Dr. Alexandra Arnott joined the Committee as the new representative for Dalhousie.
- The Committee met on Feb. 8, 2019 at the Atlantic Geoscience Society Colloquium. Representatives from Dalhousie, UNB, Acadia, and CBU were in attendance. In addition to routine planning (speakers tour, AUGC, and awards nominations) the Committee discussed the workload placed on student leaders by the AUGC and agreed by consensus that a framework should be constructed that would allow academic credit for future AUGC leaders (up to two individuals per conference). Although academic matters must be handled on a university basis, the Committee believed that Science Atlantic should voice support for action through their connection with school Deans. The Committee also expressed support for continuing efforts to reach out to regional colleges' students and faculty who might have interest in the Earth Sciences to further build community. Finally, the Committee discussed ways to increase the impact of the Speakers Tour, including providing a speaker's slot to AGS student presentation award winners, recognizing speakers with a pin, and exploring recording talks and making them publicly available (Youtube).
- An additional committee meeting planned during the AUGC was cancelled in advance due to insufficient expected attendance. The Committee instead decided to hold an online meeting if required before the scheduled meeting at the upcoming 2020 AGS Colloquium.

Respectfully submitted,
Jason Loxton, Committee Chair

Environment

Conference

The Science Atlantic Environment Conference (SAEC) was hosted at St. Francis Xavier University, March 8-10, 2019. The conference was a tremendous success with 23 oral presentations, 14 poster presentations and 80 registered participants. In addition to the usual programme of talks, poster presentations, panel discussions and keynote speakers, two Friday afternoon field trip were organized. The organizers were very successful in raising funds for the conference with total sponsorships of \$5,300. The conference finished with a small surplus. The 2020 Environment Conference will be hosted at Cape Breton University March 13-15.



Committee Business

The Committee has not held any meetings since the conference held in 2018. Post-conference we held an informal meeting without minutes to discuss SAEC objectives as a committee. In the past we had discussed cross-institutional field courses but without a champion or person with that as a primary task, it will be difficult to succeed given the requirements for each institution (tuition, credit, etc). It is still an objective that will be carried forward but difficult to handle by a group of researchers with summer field seasons. The general feeling is that we do not, as a committee, have a capacity beyond the organizing and support of the annual student conference. Including professional and/or technical skills development at the conferences would be the easiest way to provide some group learning opportunities for students.

Respectfully submitted,
Michelle Gray, Committee Chair

Mathematics and Statistics

Conference

The 2019 Mathematics, Statistics and Computer Science Conference was held October 25-27 at Dalhousie University. An AARMS workshop on Hopf Algebras and Tensor Categories was held on the 27th. The main conference lectures included:

Mathematics (Blundon Lecture): Dave Kung, University of Maryland
Harmonious Equations: An Exploration of Math and Music

Statistics (Fields Lecture): Michael Newton, University of Wisconsin
Bayesian Inference by Example in Computational Biology

Computer Science (Sedgwick Lecture): Jeffrey Shallit, University of Waterloo
Additive Number Theory via Automata

Sponsors included Dalhousie University Faculty of Computer Science, Dalhousie University Faculty of Science, AARMS, CGI, Shiftkey Labs and Morneau Shepell Ltd.

Attendance was as follows:

Participants	Number
Faculty	43
Graduates	21
Undergraduates	153
Volunteers	7
Other	4
Total	228
Oral Presentations	44

MSCS 2020 will be held at Saint Mary's University, date TBD



Committee Business

Executive membership:

- Chair: Andrea Burgess
- Vice-Chair: Caroline Cochran
- Secretary: Danielle Cox

The committee held its annual meeting, along with a joint meeting with the Computer Science Committee on October 25, 2019 at the MSCS Conference. Major points of discussion at the meetings included:

- A change in the structure of the ICPC programming contest means that in future years, a single regional competition will take place in November, eliminating the need for the Atlantic Canadian preliminary contest which in the past has taken place at MSCS. A joint subcommittee was struck to consider the effect this change will have on the MSCS conference and make recommendations on the structure/timing of the conference in future years.
- The committees discussed the implementation of committee input into the choice of plenary speakers for the MSCS conference, and plan to compile lists of potential speakers suggested by committee members for the reference of conference organizers.
- The committees discussed the formation of a Conference Support/Steering Committee, comprising members of both the Mathematics and Statistics and Computer Science Committees, to assist local organizers of MSCS.

Other Committee business:

- In 2018-19, the Committee provided \$400 from the W.J. Blundon Lecture Fund in support of the Calculus Instruction in Atlantic Canada Symposium 2019, which was held in May 2019 at Mount Saint Vincent University on the theme of “Bridging the Gap: High School and University Mathematics”. The 2020 symposium will be held at St. Francis Xavier University on “Helping High School and University Students Deepen their Understanding of Calculus”, and the Committee has again pledged \$400 in support.

Respectfully submitted,
Andrea Burgess, Committee Chair



Nutrition and Foods

Conference

Details:

- Conference location: Mount Saint Vincent University (MSVU), February 28th - March 1st, 2019
- Conference Chair: Dr. Shannan Grant (MSVU)
- Attendance: Eighty people attended the conference
- Speakers: One Key Note Speaker, Dr. Bradley Johnston, 11 student oral presentations and 14 student poster presentations

Highlights:

- 2 Workshops:
 - Dairy Farmers sponsored “Breakfast & Learn”
 - Canadian Nutrition Society sponsored an infographic workshop
- Logo: A new logo for the Nutrition and Foods Conference was developed by the student membership

Feedback on the conference was obtained using a hardcopy, mixed questionnaire composed of standardized questions and response options. Overall, the audience reported that they had a positive and welcoming experience at the Science Atlantic Nutrition and Food Conference. However, some areas for improvement are highlighted below. General recommendations for improvement:

- Payment and registration should be linked
- Keep the financial part of registration with Science Atlantic, and online
- Volunteers should be able to register without paying (with code)
- There are too many steps and questions in the current process. Respondents suggested that we look at other conference websites for insight.

The next conference will be held at the University of Prince Edward Island, March 13-14, 2020. The conference Chairs will be Dr. Sarah Finch and Dr. Jennifer Taylor (UPEI).

Committee Business

Executive Membership:

- Matthew McSweeney, (on Sabbatical) interim representative, Mojtaba Kaviana, Acadia University
- Vasantha Rupasinghe, Dalhousie University
- Sukhinder Cheema, Memorial University
- Shannan Grant, Mount Saint Vincent University (Co-Chair)
- Marcia English, Saint Francis Xavier University (Co-Chair)
- Carole Tranchant, Université de Moncton
- Sarah Finch, University of Prince Edward Island
- Edward Barre, Cape Breton University (CBU)

Committee meeting highlights:



- A SSHRC Exchange Grant (\$2,500) which supports small-scale knowledge exchange or mobilization activities was obtained as seed funding to support our inaugural conference:
 - Title of proposal: Science Atlantic's Inaugural Nutrition and Foods Conference: A Community-based Opportunity for Interdisciplinary Knowledge Exchange.
 - Authors: PI: Dr. Shannan Grant, Co-PIs: Dr. Bohdan Luhovyy, Dr. Tess Laidlaw, and Dr. Marcia English.
- A committee meeting will be held in November to receive updates on conference preparations and to continue planning for this event.

Other Activities and Projects:

The MSVU student representative, Niousha Alizadehsaravi, is currently registered for a directed studies project under the guidance of Dr. Shanna Grant. This project will explore the rationale for the development of the Science Atlantic Nutrition and Foods Committee, and will include a literature review which will examine nutrition and foods as Science and within the larger STEM (science, technology, engineering, and math) dialogue.

This review will be also be integrated into a report to Science Atlantic on the Inaugural Science Atlantic Nutrition and Foods Conference (2019), hosted at MSVU, and will be disseminated to all nutrition and foods departments in the Atlantic provinces.

Securing SRs (Student Representatives): All university representatives on the Committee will be securing SRs to support UPEI in planning.

Respectfully submitted,
Marcia English and Shannan Grant, Committee Co-Chairs

Psychology

The main activity for the Committee has been the organization of the annual conference for psychology undergraduates (mostly Honours). This year (2019), Mount Allison representatives, Drs. Lisa Hamilton and Gene Ouellette, hosted skillfully the conference on May 6 and 7. There were 113 attendees including 99 undergraduates. 13 of the 15 universities were represented.

In their report, Drs Hamilton and Ouellette suggest having a fill-in the blanks web-page on the Science Atlantic webpage to announce each year's conference and to make transfer of funds easier.

The Committee as a group continues to transition the evaluation of oral and poster presentations to an electronic paper-free format. Because of the size of the conference, faculties of the receiving university are called upon to help with this evaluation.

The Grenfell Campus of Memorial University of Newfoundland will be hosting the 2020 conference. Volunteer universities for the forthcoming conferences are Saint Francis Xavier and Mount Saint Vincent.

Respectfully submitted,
Pierre Cormier, Committee Chair



Physics and Astronomy

Conference

The 38th Annual Atlantic Universities Physics and Astronomy Conference (AUPAC) was held at Acadia University February 1-3, 2019. A total of 97 participants attended the conference; 31 undergraduate students gave oral presentations.

Dr. Richard Karsten, Dr. Michael Woodside, Dr. Rob Thacker and Dr. Kris Poduska gave presentations at the conference.

The majority of income was generated in three categories:

- I. Student and Faculty Registration fees -- \$6000
- II. Grad Fair Attendance -- \$2400
- III. Alumni donations -- \$3400

AUPAC 2020 will be held at St. Francis Xavier University January 31 – February 2.

Speaker Tour

Tour Coordinator: Ted Monchesky

Speaker 1: Dr. Pablo Bianucci presented his talk titled “*Tightly Squeezing Light in Small Spaces*” at University of New Brunswick (Fredericton), St. Francis Xavier University, Acadia University and Université de Moncton

Speaker 2: Dr. John Donohue presented his talk titled “*The Second Quantum Revolution*” Memorial University, Dalhousie University, Mt. Allison University, University of Prince Edward Island

Committee business

The Chair position had been vacant for several months, Peter Williams has now taken on the Chair role for a one-year term. The Committee has decided the Chair position will rotate annually, meaning that whichever institution is hosting the annual Science Atlantic Meeting will supply the Chair.

Respectfully submitted,
Peter Williams, Committee Chair



Special Committee Reports

Experiential Learning

No update.

Hall of Fame

No nominations were received for the 2018-19 award year.

Psychology Article Bank

One challenge in teaching critical scientific thinking to undergraduates is that the source literature makes for intimidating reading. It's typically complex, dense, and full of unfamiliar jargon. Students often turn to headlines or websites for information, which often provide oversimplified or erroneous explanations. The Psychology/Neuroscience Accessible Research Article Database (ARAD) started as a collaboration between Dalhousie University and Science Atlantic, and aims to build a collection of easy-to-understand, primary research articles suitable for undergraduate teaching. Contributions were collected from university instructors based upon two criteria: 1) article is relatively short and 2) contributor deems it to be accessible to an undergraduate science student. Then novice science students evaluate the articles for difficulty, identify jargon, and record reading time. This initiative has undergone significant progress over the past couple of years, there are now over 114 evaluated articles for Psychology and Neuroscience, and we are expanding into other scientific disciplines (Biology, Chemistry, & Physics).

A preliminary version of the article bank with summary data for the 114 Psychology/Neuroscience articles is hosted on the Science Atlantic Psychology Committee, Google sheets site: https://docs.google.com/a/scienceatlantic.ca/spreadsheets/d/1kqTq_1y4T9DA7hZo3gNEeOQMB5FSgOGK-oNTC9iBBj4/edit?usp=sharing

The current focus of this initiative is to create a resource to host this database. Jennifer Stamp of Dalhousie University is currently researching options for building a searchable database and has found a group of computer science students with appropriate expertise. Expansion of the project requires additional funds (currently this is supported by funds associated with distance teaching).

Respectfully submitted,
Jennifer Stamp, Psychology Rep



Women in Science Tour

The Women in Science Speaker Tour is co-hosted with WISEAtlantic (<http://wiseatlantic.ca/>).

2018-2019 Speaker Tour

Dr. Heather Reader (MUN) presented her talk titled “Fingerprinting dissolved organic matter: An approach to a better understanding of the chemical nature of reduced carbon in the ocean” at SMU, and MtA. She also gave a public talk titled “A river at the North Pole: Finding the transpolar drift” at Dalhousie.

Dr. Nola Etkin gave two talks. She presented “There’s STILL a great future in plastics” at MUN-Grenfell and presented the talk “Making Science Inclusive: What are we doing to build a more equitable and welcoming learning and working environment?” at MUN-Grenfell and CBU.

