Committee Reports

Fall 2016 Annual Members Meeting

November 25, 2016

Committee Reports

Aquaculture & Fisheries ................................................................. 2
Biology ............................................................................................ 5
Chemistry ....................................................................................... 8
Computer Science ......................................................................... 9
Earth Science ................................................................................ 11
Environment .................................................................................. 14
Mathematics & Statistics .............................................................. 17
Nutrition ......................................................................................... 18
Physics & Astronomy ..................................................................... 19
Psychology ...................................................................................... 20
Hall of Fame ................................................................................... 22
Aquaculture & Fisheries Conference

The primary focus of the Aquaculture and Fisheries Committee of Science Atlantic is to organize an annual student conference in March. With the help of A&F members, but mostly a big thanks to Colleen Barber (Biology), with help from Christophe Herbinger (Dalhousie), the conference held this year at Saint Mary's was a great success! As usual, A&F partnered with the Biology Conference to share resources, workload, and organization duties. There have been several discussions on what this relationship is, and where it should go/be specifically with conference organization. The A&F Committee has discussed these concerns, and is working towards a more equitable partnership. One aspect that appears to help is which committee takes the ‘lead’ on conference organization.

The 26th Aquaculture & Fisheries student conference was open to both undergraduate and postgraduate students. Two concurrent sessions were attended by many students, although, in general, it was recognized that attendance at conferences has declined in recent years perhaps due to a decline in available funding to send non-presenting students. As a committee, we are working diligently to increase student participation even if students are not presenting.

This year, 28 students presented with a few participating in the poster session held in the Biology conference. The number of presenters was the same as last year which is a good sign! Noticeably absent were student participants from a number of universities. This variability in participation is common, but underscores the need for further work getting the word out to students. The A&F Committee needs to increase its efforts to inform institutions about this conference and with the leadership of Lois Whitehead and the multitude of tools (Google Groups, etc.) being used to accomplish networking in an easy and efficient manner, these efforts should be returning greater dividends.

The joint meetings between Biology and A&F preceding committee are helpful for discussing joint issues, share ideas, and find common ground. We encourage them to continue.

With our dual focus of aquaculture and fisheries, the breadth and depth of presentations spanning fisheries modeling to feed responses in cultured species was superb! Judging such quality presentations is a difficult task, but one that the judges take with pride and hope that with further guidance, these students will become stars. Students were roughly a 50:50 split between undergraduate and post-graduate presenters, but this year, as in 2015, few students made the trip to support their classmates or to experience the conference as a spectator.
Table 1: Participant institutions and number of students.

<table>
<thead>
<tr>
<th>University</th>
<th># Presenting</th>
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<tbody>
<tr>
<td>Acadia University</td>
<td></td>
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<tr>
<td>Cape Breton University</td>
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</tr>
<tr>
<td>Dalhousie University – Agriculture</td>
<td>5</td>
</tr>
<tr>
<td>Dalhousie University – Science</td>
<td>8</td>
</tr>
<tr>
<td>Memorial University</td>
<td>2</td>
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<tr>
<td>Mount Allison University</td>
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<tr>
<td>Mount St. Vincent University</td>
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<tr>
<td>Saint Francis Xavier University</td>
<td>2</td>
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<tr>
<td>Saint Mary’s University</td>
<td></td>
</tr>
<tr>
<td>Université de Moncton</td>
<td></td>
</tr>
<tr>
<td>University of New Brunswick Fredericton</td>
<td>9</td>
</tr>
<tr>
<td>University of New Brunswick Saint John</td>
<td>2</td>
</tr>
<tr>
<td>University of Prince Edward Island</td>
<td></td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>28</strong></td>
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</tbody>
</table>

The committee thanks our fundraising organizers Tillmann Benfey and Cyr Couturier for, once again, encouraging all representatives to seek funding support. Our sponsors responded with $3,100 in support with returning sponsors from the aquaculture and fisheries sectors (Table 2). We also thank Science Atlantic for their financial contribution to the conference awards ($600).

Table 2: 2016 Sponsor affiliations.

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Aquaculture</th>
<th>Fisheries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlantic Elver Fishery, Inc.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Canadian Centre for Fisheries Innovation</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Clean Annapolis River Project</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The Lobster Council of Canada</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Nova Scotia Power</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Atlantic Society of Fish and Wildlife Biologists</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Aquaculture Association of Canada</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Cooke Aquaculture</td>
<td>X</td>
<td></td>
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<tr>
<td>Elanco Animal Health</td>
<td>X</td>
<td></td>
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<tr>
<td>Skretting</td>
<td>X</td>
<td></td>
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<tr>
<td>Valox Ltd.</td>
<td>X</td>
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</tr>
</tbody>
</table>

Plus Canadian Science Publishing and Science Atlantic provided further funds for awards.

**Award Winners**

Award winners are now posted on the ever-improving Science Atlantic website and can be found at https://scienceatlantic.ca/committees/aquafish/afwinners2016/.
Travel Awards

A travel award was awarded to a student attending from Memorial. This practice ensures participation from Memorial with increased expenses (generally flight cost) incurred due to travel distance.

Committee Meeting

Key discussion points at Aquaculture & Fisheries Committee meeting #45 11 March 2016.

1. Distribution of Awards and Travel

There are year-to-year variations in conference attendance, sponsors (and funds), and requests for travel as well as variations in amounts of travel funds requested/required by students. It was decided to keep the current practice of attempting to help as many students as possible with travel, and to distribute awards (and travel fund sponsorship to CCFFR and AAC) on a committee-based decision basis to maintain flexibility. We also decided to increase the available funds for travel from Memorial as travel costs are generally higher.

2. Awards

A breakdown of sponsorship funds into categories for awards was as prescribed in years past under the guidance of Tillmann, and the leadership of Cyr, and relayed at the meeting.

3. Attendance, Registration

Attendance was discussed. Apart from having few non-presenting students, it was discussed how to handle an increase in presenters, an ongoing concern, but not something that appears to manifest; still, we will keep an eye on it! The decision was that until there is an actionable problem, that we continue with accommodating as many presenters as possible even if that means scheduling outside of the Biology/A&F model of concurrent sessions.
Committee Membership

<table>
<thead>
<tr>
<th>Representative</th>
<th>Institution</th>
<th>Attendance (A&amp;F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trevor Avery</td>
<td>Acadia (Chair)</td>
<td>X</td>
</tr>
<tr>
<td>Tim Frasier</td>
<td>St. Mary’s (Secretary)</td>
<td></td>
</tr>
<tr>
<td>Jim Duston</td>
<td>Dal – Faculty of Agriculture</td>
<td></td>
</tr>
<tr>
<td>Tillmann Benfey</td>
<td>UNB – Fredericton</td>
<td></td>
</tr>
<tr>
<td>TBD</td>
<td>Cape Breton University</td>
<td></td>
</tr>
<tr>
<td>Thierry Chopin</td>
<td>UNB – St. John</td>
<td></td>
</tr>
<tr>
<td>Cyr Couturier</td>
<td>Marine Institute, Memorial University</td>
<td>X</td>
</tr>
<tr>
<td>Mark Fast</td>
<td>UPEI</td>
<td></td>
</tr>
<tr>
<td>Caroline Graham</td>
<td>New Brunswick Community College</td>
<td></td>
</tr>
<tr>
<td>Christophe Herbinger</td>
<td>Dalhousie – Faculty of Science</td>
<td>X</td>
</tr>
<tr>
<td>Matt Litvak</td>
<td>Mount Allison University</td>
<td></td>
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<tr>
<td>Matt Rise</td>
<td>Memorial University of Newfoundland</td>
<td></td>
</tr>
<tr>
<td>Simon Lamarre</td>
<td>Université de Moncton</td>
<td></td>
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<tr>
<td>Benedikte Vercaemer</td>
<td>DFO-BIO</td>
<td></td>
</tr>
<tr>
<td>Jim Williams</td>
<td>St. Francis Xavier University</td>
<td>X</td>
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</table>

Respectfully submitted,
Trevor Avery, Chair

Biology

Conference

The Biology Committee of Science Atlantic met on March 11, 2016 for their regular business meeting that takes place on the evening at the start of the joint Biology and Aquaculture & Fisheries conference.

The 2016 joint Biology and Aquaculture & Fisheries conference was held at Saint Mary’s University from March 11–13, 2016. The weather cooperated and attendance was excellent. A total of 164 people were in attendance for the two conferences combined. Of these, 124 were students (112 undergraduate registrants, four undergrad volunteers, and 12 graduate students) while 36 were faculty members. Atlantic universities were very well represented; faculty and staff came from 13 of 16 universities. There were 44 students giving judged oral presentations (22 of them in biology; 28 in aquaculture and fisheries) and 38 students giving posters, of which 21 presented judged posters in biology (17 biology non-judged posters and one aquaculture non-judged poster). There were two keynote speakers. The Biology group invited Dr. Marva Sweeney-Nixon from the University of Prince Edward Island who talked about “Blueberries - from field to functional food”. The A&F group invited Dr. Peter Tyedmer from Dalhousie University whose talk was titled “Seafood’s future: the importance of fisheries and aquaculture in achieving global food sustainability and security”.

Total revenues were $21,835 with expenditures of $19,080.65 for a positive balance of $2,754.35. Funds remaining after the conference are being returned to SMU and Science Atlantic. Costs were reduced by a number of methods: breakfast was not provided at the conference, money was not spent
on promotional activities, poster board stands were rented, and copies of the program were provided on USB drives. Meals at SMU comprised most of the expenses. Conference sponsors were: SMU Alumni Office, President’s Office, Biology Department, Faculty of Science, Faculty of Graduate Studies and Research, and Office of External and Student Affairs; Atlantic Society of Fish and Wildlife Biologists; Thermo Fisher Scientific; and ARAMARK Higher Education. The Canadian Botanical Association and Canadian Science Publishing sponsored student awards.

Some issues were encountered with the registration process through the Science Atlantic website (reconciling numbers from Science Atlantic webpage with registration system through SMU, cumbersome number of links for registration, registration of groups), which were eventually resolved. The biology conference organizer recommends discussions between Biology and A&F in terms of the workload of conference organization and to resolve differences between the committees in expectations for the use of fundraised money on conference expenses vs awards and registration fees.

**Award Winners**

List of the 2016 Science Atlantic Biology Conference Award Recipients

**Science Atlantic Undergraduate Research Award**

Oral, First Place: Emily Bond, Dalhousie University
Oral, Second Place, Jacob Hambrook, University of New Brunswick, Fredericton
Oral, Third Place, Taylor Brown, Acadia University
Poster, First Place, Thomas Huynh, Dalhousie University
Poster, Second Place, Natasha Collins, Memorial University
Poster, Third Place, Alyssa BeLong, Mount Allison University
Poster, Honourable Mention, Melanie Bishop, University of New Brunswick, Saint John
Poster, Honourable Mention, Hilary Brewis, Dalhousie University

**Science Atlantic Communication Award, sponsored by Canadian Science Publishing**

Oral Presentation Jennifer Poirier, Saint Francis Xavier University
Poster Ashley Fletcher, Saint Mary’s University

**Botany Award, sponsored by the Canadian Botanical Association**

Oral Presentation, Emily Corkum, Dalhousie University
Committee Meeting

The Biology Committee’s regular fall business meeting and workshop were held November 4-5, 2016 at StFX. Heather Hunt (UNB Saint John) has rejoined the committee and become the Chair. Russell Wyeth (StFX) and Magi Beaton (MtA) are serving as substitutes for their institution’s committee member for this year. At the Friday evening meeting, Lois Whitehead provided an update on Science Atlantic. Committee members also discussed again the idea of a field course consortium. Committee members agreed to update the current Science Atlantic website listing biology field courses and to link to this page from departmental Facebook pages to promote these courses more to students outside their own institutions. Preparations for the next conference were discussed. The next joint Biology and Aquaculture & Fisheries conference will be held at St. Francis Xavier University, March 10-12, 2017.

At the Saturday workshop, the committee discussed poster judging at the conference and decided to develop a new evaluation sheet to provide more feedback to students through a rubric while streamlining work for judges. The committee also discussed the value of hands-on labs and the situation at different institutions, some of which are feeling pressure to reduce labs. The committee believes a survey of alumni regarding the value of labs during their undergraduate experience would be valuable information to promote the value of hands-on labs and field courses. The committee feels that alumni who are out in the work force or are attending graduate school are even more aware of the value of hands-on labs and field courses than current students.

At the November 25-26, 2016, annual general meeting, Heather, on behalf of the Biology Committee, will be requesting that the Council of Science Atlantic assist in the development of a multidisciplinary survey of alumni related to the value of hands-on experiences in undergraduate education in science and for the Deans of Science to request alumni associations to distribute the survey to alumni.

Members in attendance or by video link:

Acadia University: Allison Walker
Cape Breton University: Katherine Jones
Dalhousie Agricultural Campus: Raj Lada
Dalhousie Microbiology and Immunology: Lois Murray
Memorial University: Suzanne Dufour
Mount Allison University: Magi Beaton
Mount Saint Vincent University: Kevin Shaughnessy
Saint Mary’s University: Colleen Barber
St. Francis Xavier University: Russell Wyeth
Université de Moncton: Alyre Chiasson
University of New Brunswick, Saint John: Heather Hunt

Respectfully submitted,
Heather Hunt, Chair
Chemistry

Conference

ChemCon 2016 was held at Mount Saint Vincent University, Halifax, on June 2-4, 2016 with Dr. Ian Pottie as faculty organizer. The Conference was well attended by students and faculty from various universities. The plenary speaker was Dr. Tomas Hudlicky of Brock University, Ontario.

Award winners:

- **Science Atlantic Undergraduate Research Award**
  Bradley Greene, Saint Mary’s University

- **Science Atlantic Undergraduate Science Communication Award**
  Kyle Awalt, Saint Mary’s University

- **ACEmat Award in Computational Modeling of Materials**
  Ifenna Mbaezue, Saint Mary’s University

- **Murray Brooker Award for Best Undergraduate Oral or Poster Presentation in Chemical Education**
  Melanie Davidson, Saint Mary’s University

- **CATC Award for the Best Undergraduate Presentation in Theoretical or Computational Chemistry**
  Oral, Mitch Pinto, Acadia University
  Poster, Archita Adluri, Memorial University

- **CIC Award for the Best Undergraduate Presentation in Biological/Medicinal Chemistry**
  Oral, Julia McCain, Acadia University
  Poster, Blake Power, Memorial University

- **CIC Award for the Best Undergraduate Presentation in Materials Chemistry**
  Oral, Kori Andrea, Cape Breton University
  Poster, Adrienne Allison, Dalhousie University

- **CIC Award for the Best Undergraduate Presentation in Organic Chemistry**
  Oral, Rachael Weagle, Acadia University
  Poster, Chandika Devi Ramful, Saint Mary’s University

- **CIC Award for the Best Undergraduate Presentation in Analytical Chemistry**
  Oral, Ryan Greenham, Acadia University
  Poster, Presley MacMillan, Saint Mary’s University

- **CIC Award for the Best Undergraduate Presentation in Inorganic Chemistry**
  Oral, Mason Lawrence, Memorial University
  Poster, Angela Todd, Saint Mary’s University

- **Best Graduate Presentation**
  Oral, Chris Lavoie, Dalhousie University
  Poster, Alex Veinot, Saint Mary’s University

Next Conference
ChemCon 2017 will be hosted by Memorial University May 4-6, 2017. Planning for this conference is currently in progress.

**Speaker Tour**

The Science Atlantic-CIC Chemistry Speaker Tour has been organized for 2016-17. The speakers are Dr. Geniece Hallett-Tapley (St. Francis Xavier University) and Dr. Kai Ylijoki (Saint Mary’s University) who will be presenting at three universities each. Dates have yet to be confirmed.

Respectfully submitted,
Matthias Bierenstiel, Chair

## Computer Science

### Conference and Award Winners

The annual Mathematics, Statistics and Computer Science Joint Conference was held at Cape Breton University, October 14-16, 2016. In addition to the programming competition, there were four undergraduate research talks, three graduate talks, as well as one faculty member contributed talk in Computer Science.

There were three invited speakers:

- a. Blundon Lecture: Dr. Kabe Moen, University of Alabama
- b. Sedgwick Lecture: Dr. Anne, Condon, University of British Columbia
- c. Field Lecture: Dr. Hugh Chipman, Acadia University

Attendance (158 total, including Math, Stats and CS delegates) was as follows:

- Acadia University: 16
- Cape Breton University: 14
- Dalhousie University: 29
- Mount Allison University: 13
- Mount St. Vincent University: 4
- Memorial University: 6
- University of Prince Edward Island: 18
- St. Francis Xavier University: 13
- Saint Mary’s University: 4
- Université de Moncton: 13
- University of New Brunswick (F): 12
- University of New Brunswick (SJ): 11
- University of Winnipeg: 1
- University of Alabama: 1
- University of British Columbia: 1
- Science Atlantic: 2

### Award winners

Computer Science Programming Competition (16 teams of three students each competed):
First: Vlad Marica, Lucas Pond, Caleb Reath (University of New Brunswick – Fredericton)
Second: William Fiset, Thomas Lidbetter, Micah Stairs (Mount Alison University)
Third: Sam Doiron, Orjan Monsen, Mitchell Zinck (Dalhousie University)

Computer Science Research Award:
First: Martin Main (Acadia University)
Second: Sarah Thompson (University of Prince Edward Island)

Next Conference

The next conference will be held October 13–14, 2017, at University of New Brunswick, Fredericton.

Committee Business

At the spring 2016 committee meeting the nominations of Jim Diamond (Acadia) and Laurence Yang (StFX) for, respectively, Chair and Secretary, were unanimously approved.

Ilya Blum, the long-term CS committee representative for Mount Saint Vincent, has retired and will be sorely missed. MSVU has not replaced him; consequently, for at least the near future, MSVU will have no representative on the Science Atlantic CS Committee.

At the fall committee meeting, the programming competition was the primary topic of conversation.

- Last-minute submission of programming competition problems to the contest director continues to plague this conference. Plans to revive a moribund “programming competition problem” sub-committee were discussed.
- The use of Python as a choice of programming language for the programming competition in future years was discussed and approved in general, although the choice of computing environment is, ultimately, up to the contest director. This addition was driven by the fact that Python is being considered for use in other programming competitions, such as the competition at which the top Atlantic teams next compete.
- The ability to use Kattis as the programming competition system (as opposed to PC^2) was not clarified, since the person investigating this was on sabbatical and did not attend the committee meeting.

Respectfully submitted,
Jim Diamond, Chair
Earth Science

Conference and Award Winners

Congratulations to the Fletcher Geology Club who delivered an outstanding Atlantic Universities Geoscience Conference, 27-29 October 2016. Events started with the Thursday evening Challenge Bowl, hosted by the CSEG. The bowl returned to Acadia after an outstanding performance by Acadia students who won all of the rounds by a wide margin over teams from St. Francis Xavier, Saint Mary’s, UNB, and Memorial. Impressive! The prize is an all-expense-paid trip to Calgary in the spring for two Acadia students to participate in the national championship.

Friday saw field trips head in three directions from Acadia with early starts in hopes of avoiding foul weather. First, three vans headed west, led by Cliff Stanley, to East Kemptville to view the old tin mine, the recent drilling and the Brazil Lake pegmatite. In spite of wind and wet weather, several good specimens of spodumene and lepidolite were acquired. Half an hour later, a bus-load of students, including some visitors from Horton High School, headed to the South Shore to view the stratigraphy and deformation in the Meguma Supergroup at Green Bay, LaHave Islands, West Dublin and Feltzen South. Although the rain held off, the wind was fierce and the never-ending hike around the mushroom fold at Feltzen South achieved only two circuits before Rob Raeside, trip leader, could shout no more! This trip ended up in the relatively sheltered Aspotogan shore to view the effects of contact metamorphism in the rain. The final trip to depart stayed local, as Ian Spooner and Sandra Barr toured the eastern Annapolis Valley with stops on glacial deposits, deltaic deposits, siltstone, mudstone, slate, granite, sandstone, conglomerate, basalt and limestone, plus several beach stops to look at modern processes. Participants remained enthusiastic even after the rain began in the early afternoon.

In addition to the field trips, a fourth group of students participated in a short course on "Using seismic data: from discovery to early field development", in which they learned how to apply geophysical methods to petroleum exploration replete with mapping out a faulted reservoir, estimating recoverable reserves, and designing the development of a producing oil field. The course was instructed by Dr. Fred Schroeder from Houston, Texas, and sponsored by AAPG.

Saturday was a busy day with 16 oral presentations and six poster presentations by students. Many people commented on the quality of the presentations - how can every one of these presentations by undergraduate students be of such quality, exceeding that of many professional conferences? Congratulations to all speakers and poster presenters - the diversity of topics and presentation styles was truly impressive. The day concluded with a closing banquet at the Old Orchard Inn, where we were given sage advice about what not to forget in our field kits by Amy Tizzard, winner of the APICS award at the 2002 AUGC, and now a contract geoscientist, based in Oxford, NS, but working in Namibia. Amy regaled us with her adventures, in Yukon, Australia, Kilimanjaro and Namibia.
The award winners are:

**Science Atlantic Best Paper Award:** Sean Murphy, Memorial University, for his paper "Three-dimensional morphological characterization of the trace fossil Parahaentzschelinia ardelia, Atoka Formation, Oklahoma"

*Honourable mentions* were made to the presentations by Alexander MacBeath and Nikki Bursey (both from Memorial University)

**Imperial Oil Best Poster Award:** Christopher Williams, Memorial University, for his poster "Rifted margin and sedimentary structure of the Porcupine Abyssal Plain, outboard of Goban Spur, southwest Ireland"

**Frank Shea Award for best paper in Economic Geology:** Taylor Chew, Acadia University, for his paper, "Geological setting of Au-Cu-Ni-Pb occurrences in the Second Gold Brook area, southwestern Cape Breton Highlands, Nova Scotia"

**CSPG Award for best presentation of a petroleum geology-related paper:** Erin Anderson, Dalhousie University, for her paper "Diagenetic effects and fluid flow along erosional boundaries in the Triassic Wolfville Formation at Rainy Cove, Nova Scotia"

**CSEG Award for best presentation of a geophysics-related paper:** Nicholas Lynch for his paper, Geophysical detection of reducing springs: A new approach.

**AGS Environmental Geoscience Award:** Fiona Henderson, for her paper "Predicting zones and potential sampling methods for elevated metal concentrations in urban soils, Halifax, Nova Scotia"

Following the announcement of awards for student presenters, several faculty members were recognized for their long-standing activity with Science Atlantic (and in earlier days APICS): Sandra Barr, David Lentz, Brendan Murphy, and Ian Spooner. Each professor received a Science Atlantic silver pin. Pins will also be awarded to Jarda Dostal, Milton Graves, and Patrick Ryall at events in Halifax. Finally, Rob Raeside was inducted into the Science Atlantic Hall of Fame, recognizing his 34 years of activity in APICS and Science Atlantic, on the Earth Science Committee and as member and Chair of the Councilil of Science Atlantic.

Congratulations to the AUGC organizers! Lois Whitehead commented at the closing banquet that of the many Science Atlantic conferences she has seen happen, this was among the best organized. Big thanks to Sarah, Alex and crew for all your hard work on it.

**Committee Business**

Meeting: Old Orchard Inn, Wolfville, Saturday 29th October, 2016, at ca. 5.30 p.m.

Present: Grant Wach (chair and Dalhousie University), James Brenan (guest; new department chair at Dalhousie University), Jamie Braid (St. Francis Xavier), David Lentz (UNB), Christa Pufahl (Acadia), Lois Whitehead (Science Atlantic)

Regrets: Alison Leitch, Jacob Hanley (SMU), Deanne van Rooyen (CBU)

1. **AUGC Awards**
These have been finalized with considerable input from Sandra Barr, Lois Whitehead and the committee.

2. Science Atlantic Awards

Grant Wach expressed the desire to recognise Milton for his service to Science Atlantic and AGS, for example as a regular judge at conferences. Agreed to get him nominated for the AGS Laing Ferguson Award – Grant Wach will ask Anne-Marie Ryan and Lexie Arnott to coordinate the nomination.

3. Speaker Tour

James Brenan (Dalhousie University) will tour this year to Acadia, SMU and UNB. Todd Ventura (Saint Mary’s University) will visit Dalhousie, StFX and MUN. The speaker tours are funded by Science Atlantic ($800, firm) and the Atlantic Geoscience Society.

4. Science Atlantic’s Conference in a Box

There was greater success by the Acadia organizing committee for the AUGC with CIAB. While using CIAB will not prevent problems, it will alert students in a timely manner about what needs to be done. Science Atlantic reps were asked to strongly encourage students to use this resource.

5. AUGC at Acadia

See above (from Rob Raeside)

6. Adjournment at 6.15 p.m.

Next meeting Saturday, February 11, 2017, at Atlantic Geoscience Society Colloquium in Fredericton.

Respectfully submitted,
Grant Wach, Chair
Environment

Conference

The Environment Student Conference was held from March 18-20, 2016 at the University of Moncton, under the co-chairship of Alain Patoine and Celine Surette. The Environment Committee thanks both Alain and Celine for the wonderful, flawless arrangements. We also thank the University of Moncton for the support and sponsorship towards the conference. The student representatives Ariane Juneau-Godin, Joanie Kenah, Chloe Melanson, Jolene Santerre and Guillaume Fortin, and Carole Tranchant contributed significantly to the success and the committee sincerely thanks their tremendous spirit and volunteerism.

In total, there were 71 participants. There were 14 undergraduate talks, six undergraduate posters, 14 graduate student talks, and 14 faculty from the Atlantic region. Acadia, Cape Breton, Dalhousie, Grenfell campus of MUN, MUN, Mount Allison, Saint Mary’s, StFX, UdeM, UNB-F, UNB-SJ, and UPEI all participated.

A roundtable, “Environmental actions for a better world”, was held. The participants were:

- Jocelyne Gauvin, Groupe de développement durable du Pays de Cocagne
- Marie-Pierre Poirier, Réseau environnemental du Nouveau-Brunswick/New Brunswick Environmental Network
- Patrick Thibeault, Animateur de Agrofolie et Rédacteur en chef du magazine Bouffe/TV host - Agrofolie and Chief Editor of Bouffe magazine

There were two keynote addresses. Steven Guilbeault presented “Climate change: Issues and solutions”. “Climate change in the Arctic” was presented by Nicolas Lecomte, Research Chair in Polar and Boreal Ecology, University de Moncton.

The conference was, all in all, a very successful event.

The committee sincerely thanks the sponsors: eosense, Enterprise, University de Moncton-campus de Shippagan, Faculty des sciences–decanat, maitrise en etudes de l’environment, alUMni, la federation des etudiantes et etudiants de centre universite de Moncton, Universite de Moncton, SYMBOIOSE; Faculty of arts and sciences, and Faculty des etudies superieures et de la recherché, FESR.

Budget

There was a surplus of $1,824.05 in the Environment Committee Holding Account in March 2016. The March conference created a surplus of $1,949.81, which will be carried forward.

The committee decided to award $125 for first place and $75 for second place in both oral and poster presentation categories. The committee also decided to use $200 from the Holding Account for graduate research oral presentation awards, $125 for first and $75 for second. Canadian Science Publishing provides $200 for a student who is best able to communicate a science topic to their peers. The committee decided to judge all oral and poster presentations for both undergraduate and graduates together for one award of $200. The KC Irving Environmental Science award has been renewed for another three years ($250). This award is given to the best oral or poster presentation of undergraduate student research relating to the flora or fauna of the Acadian Forest region. The award can be given to a graduate student if there is not a suitable undergraduate student presentation.
Award Winners

Science Atlantic Undergraduate Research Award

Oral First place: Sonya Ardley, Acadia University, *Investigation of effluent water quality and treatment options for carrot processing facility*

Oral Second place: Rachel Shin, Dalhousie University, *Exploring the influence of nature exposure on risk-based decision making*

Poster First place: Samantha Stachiw, St. Francis Xavier University, *Does the addition of biochar to nitrogen-enriched soils alter greenhouse gas emissions and the leaching of nutrients?*

Poster Second place: James Williams, St. Francis Xavier University, *An analysis of atmospheric gas concentrations and the implications of abandoned oil and gas infrastructure at the Stoney Creek oilfield, New Brunswick*

Science Atlantic Graduate Research Award

Oral First place: Emily Walker, Saint Mary’s University, *Increased environmental heterogeneity effects substrate conditions and alters seedling dynamics on green roofs*

Oral Second place: Allison Dickhout, University of New Brunswick - Fredericton, *Spatial variability of aquatic ecosystems in a groundwater dominated watershed*

Science Atlantic Communication Award, sponsored by Canadian Science Publishing

Sara Klepstein, Memorial University, *Dissolved organic matter controls mercury photoreaction in fresh water lakes*

KC Irving Environmental Science Award

Amanda Ring, Dalhousie University, *The habitat characteristics associated with redroot in Southwestern Nova Scotia*

Next Conference

Michelle Gray, UNB–Fredericton, and her team will be organizing the conference in March 2017. Options for organizing the conference along with Biology and Fisheries Aquaculture were discussed. The committee confirmed that it will hold a separate Environment Conference. Mount Allison has offered to host the Environment Conference in 2018.

Meetings

Two meetings were held during the reporting period, one in October 2015, and the other one on March 2016. Minutes of the meetings were sent to Science Atlantic.
Committee Membership

Susan Gass is now the representative from Dalhousie University. Other than this, no major changes to the membership occurred.

Alice Cohen  
Acadia University

Martin Mkandawire  
Cape Breton University

Susan Gass  
Dalhousie University

Raj Lada  
Dalhousie Agricultural Campus

Christine Campbell  
Grenfell Campus

Tom Chapman  
Memorial University

Ben Philips  
Mount Alison University

Linda Campbell  
Saint Mary's University

Dave Risk  
St. Francis Xavier University

Alain Patoine  
Universite de Moncton

Michelle Gray  
University of New Brunswick, Fredericton

Heather Major  
University of New Brunswick, Saint John

Carolyn Peach Brown  
University of Prince Edward Island

Carolyn Peach Brown finished her two-year term as Chair of the Environment Committee in March 2016. The committee applauds her service. Raj Lada was nominated as the Chair of the Environment committee, after a term as Vice-Chair of the committee. The nomination was unanimously accepted by the membership. Michelle Gray agreed to act as Vice-Chair.

Concerns

Concerns about the ethics of accepting awards from some companies.

Respectfully submitted,
Raj Lada, Chair
The Atlantic Universities Mathematics, Statistics and Computer Science conference was held at Cape Breton University in Sydney from October 14 to October 16, 2016. Approximately 150 people attended the conference, including over 100 undergraduate students.

As has been the tradition, the first major events of the conference were the Mathematics Problem Solving Competition and the Computer Science Programming Competition on Friday afternoon. There were 19 teams competing in the Mathematics competition. In the closely contested event, five teams managed to move ahead of the pack. MUN teams finished in first and third place, a team from Dalhousie placed in second, while a team from UNB Fredericton and a team from St. Mary’s received honourable mention for their performances. On Friday evening, the Blundon Lecture was presented by Kabe Moen of the University of Alabama whose talk was titled, “Hearing the shape of a drum”. This was followed by a welcoming reception.

Saturday was the main day for the conference. In total, 24 students in mathematics, statistics or computer science presented by their research. At the start of the day Dr. Pronk (Dalhousie), on behalf of the graduate schools in the region, gave advice to those looking to apply to graduate schools, including presenting information from NSERC. Anne Condon of University of British Columbia presented the Sedgwick Keynote Lecture on “Models and hardness results for predicting secondary structure and kinetics of interacting DNA strands” in the late morning. The Field lecture was presented Saturday afternoon by Hugh Chipman of Acadia University on “An Overview of Statistical Learning”.

The final event of the conference was Sunday’s special session on Partial Differential Equations: Regularity, Numerics, and Applications.

Major sponsors: Science Atlantic, AARMS (Atlantic Association for Research in the Mathematical Sciences) and Cape Breton University.

Other sponsors: ACEnet, Cape Breton University School of Science and Technology, and Cape Breton University Department of Mathematics, Physics and Geology.

The 2017 conference will be held at University of New Brunswick, Fredericton in late October.

Committee Business

An MOU was prepared over a year ago to formalize AARMS sponsorship of the conference. It was sent to be reviewed by Science Atlantic lawyers and Science Atlantic is now preparing the document in a new format.

Respectfully submitted,
Stephen Finbow, Chair
**Nutrition**

The Science Atlantic Nutrition Committee is a new committee. It was formally organized in June, 2016 and we are still very much in the early stages of getting oriented in our new roles.

Our goal is to meet sometime in early January 2017 to set out a plan of action for 2017 and to start preparing for our first student conference in 2018.

**Next Conference**

The first Science Atlantic Nutrition Conference will be hosted by St. Francis Xavier University in Antigonish, NS. Dates are still to be determined.

**Other Activities**

Prior to the official recognition of the Nutrition Committee, members of the committee as well as the Science Atlantic Chair and Executive Director met on several occasions by teleconference in 2015-2016: to explore the interest for creating a Nutrition Committee, to identify a representative from each member institution, to develop a summary of goals and activities to present to the Board for approval, to choose a logo, to identify a host and time for our first student conference, and to choose a Committee Chair. During this process, members at each institution have consulted the student groups with interest in nutrition and food science.

Information about the Nutrition Committee can be found on Science Atlantic web site: https://scienceatlantic.ca/committees/nutrition. This information will be translated in French.

**Membership**

Matt McSweeney, Acadia University  
Gianfranco Mazzanti, Dalhousie University  
Vasantha Rupasinghe, Dalhousie University  
Sukhinder Cheema, Memorial University  
Bohdan Luhovyy, Mount Saint Vincent University  
Shannan Grant, Mount Saint Vincent University  
Marcia English, Saint Francis Xavier University (Chair)  
Carole Tranchant, Université de Moncton  
Kathy Gottschall-Pass, University of Prince Edward Island

Respectfully submitted,  
Marcia English, Chair
Physics & Astronomy

Conference

The last AUPAC (Atlantic Universities Physics and Astronomy Conference) was held at Memorial University from 5-7 February 2016, with Rick Golding as the faculty liaison to the student organizing committee. The attendance was approximately 120 people, including students and faculty. The speakers were Dr. Christopher Stevenson, Dr. Louise Edwards, Dr. Hari Kunduri, and Dr. Kris Poduska and the sponsors were MUN and Exxon Mobil. It was the second conference in a row where a Women in Physics session was held, and it is hoped this initiative will continue. Overall the conference was well run and well attended. The conference finances closed with a modest surplus of approximately $40.

Next Conference

The next conference will be held from 3-5 February 2017 at UPEI in Charlottetown, PE.

Speaker Tour

For the 2016 CAP-SA lecture tour, three different speakers presented at eight institutions, including one joint presentation. Professor Ross Lockwood from the University of Alberta spoke about “Real Life on Fake Mars” at Acadia University on 9 March, at Saint Mary’s for both SMU and Dalhousie students on 10 March, and at St. Francis Xavier on 11 March. Professor Daniel Stolarski from Carleton University presented on “The Nature of the Higgs Boson” at UNB Fredericton on 29 March, Université de Moncton on 30 March, Mount Allison University on 31 March, and at the University of Prince Edward Island on 1 April. Professor Kevin Vanderlinde from the University of Toronto presented on “Cosmology, Cell Phones & Video Games: The Canadian Hydrogen Intensity Mapping Experiment” at Memorial University on 30 March. By all accounts the lecture tour was a big success. The lecture tour for 2017 is currently in the planning stages.

Executive Membership

The executive membership of the committee is Dr. David Hornidge (MTA), Chair and tour coordinator, and Dr. Douglas Dahn (UPEI), secretary.

Holding Account

There was no activity in the Holding Activity during the period of this report.

Respectfully submitted,
Dave Hornidge, Chair
The Science Atlantic 2016 Psychology Conference took place at Université de Moncton, Moncton, NB on May 12-13.

Attendance: 92 registered student participants from 13 institutions (see table below), with 48 oral and 44 poster presentations, 19 faculty, as well as representatives Science Atlantic (2), the Canadian Psychological Association (2), and Consortium National pour la Formation en Santé (CNFS) (2).

<table>
<thead>
<tr>
<th>University</th>
<th>Number of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acadia University</td>
<td>3</td>
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<tr>
<td>Cape Breton</td>
<td>10</td>
</tr>
<tr>
<td>Crandall</td>
<td>1</td>
</tr>
<tr>
<td>Dalhousie</td>
<td>10</td>
</tr>
<tr>
<td>Memorial</td>
<td>16</td>
</tr>
<tr>
<td>Mount Allison</td>
<td>9</td>
</tr>
<tr>
<td>Mount Saint Vincent</td>
<td>9</td>
</tr>
<tr>
<td>Saint Francis Xavier</td>
<td>5</td>
</tr>
<tr>
<td>Saint Mary's</td>
<td>5</td>
</tr>
<tr>
<td>Saint Thomas</td>
<td>4</td>
</tr>
<tr>
<td>Université de Moncton</td>
<td>11</td>
</tr>
<tr>
<td>University of New Brunswick – Fredericton</td>
<td>7</td>
</tr>
<tr>
<td>University of Prince Edward Island</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>92</strong></td>
</tr>
</tbody>
</table>

Speakers: Geneviève Bouchard and Jean Saint-Aubin, Université de Moncton, “Statut conjugal et divorce: Le rôle inattendu des déficits attentionnels/Marital status and divorce: The unexpected role of attention deficits.”

This talk was given in both French and English, with English text available during the French portion of the presentation. The talk was excellent; both presenters did a fantastic job of describing their respective research areas on attention and relationships, in a way that was easily accessible to everyone in the audience, both conceptually and linguistically. There was a consensus that a basic background in French was sufficient for the largely Anglophone audience to follow along. This was one of the highlights of the conference.

The plenary lecture this year was held after the opening remarks on the first day rather than at the end of the conference, following the format from the previous year at Memorial. This appears to be the most appropriate time slot for the plenary, rather than at the closing banquet.

Sponsors: Almost all revenue came from organizations within the Université de Moncton, since it was not possible to obtain sponsorship from private companies (e.g. publishers). The following provided support: Canadian Psychological Association, Association of Psychologists of Nova Scotia, Université de Moncton, Consortium National pour la Formation en Santé, CSBSCS, Collège des psychologues du Nouveau-Brunswick, and FÉÉCUM.
Key Issues: There were no significant issues that arose for the 2016 meeting, although the conference organizers noted that the existing registration system did not allow for block registration of attendees, which was preferred by representatives from some institutions. Despite this, pre-registration and submitting abstracts went fairly well through Science Atlantic software/internet capabilities. There were a number of failures that necessitated the constant vigilance of the site webmaster, but these were managed through personal interventions. Another issue was that the poster size instructions provided by Science Atlantic were incongruent with the poster board dimensions at Université de Moncton. There was a recommendation that in the future, host institutions communicate the poster board dimensions to the registration system ahead of time. Also, the caterer had some difficulty with taking food restrictions into account (especially lactose and gluten-free).

Highlights: The student-organized social event on the first night was a big success, with a live student band and photo booth available for selfies and group photos. The plenary (see above) was also a highlight, as it was the first time Science Atlantic Psychology had a bilingual, plenary presentation. Also, the Consortium National pour la Formation en Santé hosted a breakfast discussion with health professionals. Of course, another highlight of the conference were the students’ research presentations; the award winners in particular were very impressive (awardees are posted on the Psychology Committee site at https://scienceatlantic.ca/committees/psychology/psychwinners2016/).

Next Conference

The 2017 student conference will be held at Cape Breton University, May 25-26, 2017. There has been an encouraging amount of sponsorship to date, with at least one large publisher contribution as well as APNS. Planning is continuing.

Other Activities

The activities of the Psychology Committee have historically centred solely around the annual undergraduate conference, but in the past year the committee has made progress on a Psychology/Neuroscience Accessible Research Article Database (ARAD), an idea proposed by the chair at the previous Science Atlantic conference. The aim is to build a collection of easy-to-understand, primary research articles suitable for undergraduate teaching. To date, several faculty have contributed primary research articles which they deemed to be appropriate for first year students, and a number of these were evaluated for difficulty by two novice students over the summer. The bank has a total of 19 vetted articles, organized by topic as they are typically taught in an introductory level course. The current focus of this project is building a resource to host this database, possibly on the Science Atlantic site.

Committee Business

Some changes to membership: Sue Walling stepped in as the representative from Memorial (to replace Aimee Surprenant), Sean MacKinnon is the new representative for Dalhousie (to replace Leanne Stevens who filled in for 2015-16), Tracy Freeze for Crandall University, Erin Austin from St. Francis Xavier (to replace John McKenna), and Murray Goddard for University of New Brunswick, Saint John.

Respectfully submitted,
Jennifer Stamp, Chair
Hall of Fame

Please accept the following as the 2016 report of the Hall of Fame Committee. The Hall of Fame Committee for 2016 consisted of Dr. Francis Leblanc (Université de Moncton), Dr. Kenneth Kent (University of New Brunswick, Fredericton), Ms. Holly Baker (Distinguished Alumnae) and myself. The Committee met and discussed nominees for the Outstanding Contributing Member and Outstanding Member categories. No nominations were received for the Outstanding Alumnae/Alumnus or Volunteer Service Award designations.

The Committee unanimously recommended the following:

- that Dr. Rob Raeside be awarded “Outstanding Member” designation;
- that Dr. Robert Dawson be awarded “Outstanding Member” designation; and
- that Mr. Milton Graves be awarded “Outstanding Contributing Member” designation.

**Dr. Rob Raeside**, of Acadia University, has a long and storied history with Science Atlantic. He has been involved with the organisation for well over 25 years. He has served as committee representative, committee Chair, on the Science Atlantic executive, and two terms as Chair of Science Atlantic. Dr. Raeside has contributed to the organisation at every level, and perhaps most notably led the organisation of the 50th Anniversary celebration and the re-visioning of the former APICS as it evolved into Science Atlantic. Dr. Raeside is an outstanding academic with many teaching, research, and service successes throughout his career. The Hall of Fame Committee believes Dr. Rob Raeside deserves to be recognized as an “Outstanding Member” to Science Atlantic.

**Dr. Robert Dawson**, of Saint Mary’s University, has been nominated for his service to the Mathematics and Statistics Committee. Dr. Dawson has served on the Mathematics and Statistics Committee for over 20 years. Dr. Dawson has made substantial contributions to the Committee, including serving several years as Chair, and host of two conferences at Saint Mary’s University. He has also made several contributions to the teaching of Mathematics in the region, including supporting the review of high school curricula, and the development of a preparatory workbook for students entering university. Dr. Dawson is an outstanding academic with many successes in teaching, research, and service. The Hall of Fame Committee believes Dr. Dawson deserves to be recognized as an “Outstanding Member” to Science Atlantic.

**Mr. Milton Graves** of Dalhousie University has an extensive history with the Geology committee. Notably, he has served as lead judge at numerous AUGC and AGS meetings. His contributions have had lasting impact in developing the students who will become leading scientists and professional geologists in their fields. Mr. Graves has worked tirelessly to promote and support Science Atlantic and encourage both students and faculty to take an active role in the organization. Mr. Graves is an outstanding academic with many successes in teaching, research, and service. The Hall of Fame Committee believes Dr. Dawson deserves to be recognized as an “Outstanding Contributing Member” to Science Atlantic.

Respectfully submitted,
Steven M. Smith, Chair