# THE ATLANTIC GEOSCIENCE SOCIETY (AGS)
# LA SOCIÉTÉ GÉOSCIENTIFIQUE DE L'ATLANTIQUE

# 52ND COLLOQUIUM AND ANNUAL MEETING

**Special Sessions**
**S1:** Ongoing developments in coastal and marine geoscience in Atlantic Canada
**S2:** Sedimentological and paleontological applications in advancing a sustainable energy future
**S3:** Advances in Appalachian tectonics: insights from field and laboratory studies
**S4:** Educational outreach
**S5:** Terrestrial and marine surface processes in Atlantic and Arctic Canada
**S6:** Advancing critical mineral development in Atlantic Canada

**General Sessions**
**G1:** Geoscience research developments

## 6-7 February 2026

We acknowledge that the Atlantic Geoscience Society is on the traditional and unceded territories of the Mi'kmaq, Wolastoqey, Peskotomuhkati, Innu, Inuit and Beothuk. These nations have been present on these lands since time immemorial: from their ancient stories that share important geological knowledge like fossil localities, gem and mineral sites and more, to John Basque, the first Indigenous Mi'kmaw person to work for the Geological Survey of Canada at its inception in 1843. Indigenous people have always been integral to the study of geology. The knowledge keepers, earth keepers and land defenders continue to do important geological work across these lands. The Atlantic Geoscience Society recognizes that we are all Treaty People and therefore supports honouring the treaties signed with all levels of government in this region.

## PROGRAM

**SPONSORS**

The Atlantic Geoscience Society Colloquium is where students, industry professionals, government leaders, and academics come together to learn, share research, and collaborate on advancing geoscience.

This event would not be possible without the incredible support of our sponsors from the local geoscience community.

A heartfelt THANK YOU to these organizations for their commitment to fostering innovation and driving geoscience forward in Atlantic Canada. Your investment in knowledge and collaboration makes a lasting impact!

Welcome to Truro, Nova Scotia! This will be the 52nd time that the Atlantic Geoscience Society has met for an Annual Meeting, although the first Colloquium did not begin until a few years later. We hope you will find something that interests you and generates discussion with friends and colleagues, old and new alike. The excellent program is a testament to this great conference and the attraction this annual highlight holds for all of us. AGS members are clearly pushing the boundaries of geoscience in all its branches! It is very encouraging to see that 51 of the 103 submissions are from students. We will be hosting three simultaneous sessions Friday night and all day on Saturday. Be sure to take in the poster session and don't miss the awards banquet and get together on Saturday night at 7.00 p.m. Special thanks to the chairs of the Special Sessions for proposing, organizing, and hosting their sessions. We hope you will be able to use the weekend to renew old acquaintances, make new ones, and support the Atlantic Geoscience Society.

*Jared Butler, Lynn Dafoe, Maureen Matthew, Michael Parsons, Rob Raeside, Deanne van Rooyen, Carla Skinner*

## PROGRAM SUMMARY

**FRIDAY – 6TH FEBRUARY 2026**

| | | |
|---|---|---|
| 12:00 – 8:00 pm | Registration | *Lobby* |
| 1:00 – 4:00 pm | Poster Set Up | *Elm* |
| 8:00 – 5:00 pm | Workshop 1: QAQC Methods | *Birch* |
| 8:00 – 5:00 pm | Workshop 2: Mineral exploration in glaciated terrain | *Maple* |
| 1:00 – 5:00 pm | Workshop 3: Building community within the geosciences | *Aspen* |
| 2:30 – 4:00 pm | Products and Publications Committees | *Hemlock* |
| 4:00 – 6:00 pm | Atlantic Geoscience Editors Meeting | *Hemlock* |
| 4:00 – 6:00 pm | Poster Session | *Elm* |
| 6:00 – 8:00 pm | Session 1: Ongoing development in coastal and marine geoscience in Atlantic Canada | *Maple* |
| 6:00 – 8:40 pm | Session 5: Terrestrial and marine surface processes in Atlantic and Arctic Canada | *Aspen* |
| 6:00 – 8:40 pm | Session 3: Advances in Appalachian tectonics: insights from field and laboratory studies | *Birch* |
| 8:00 – 10:00 pm | Poster Session | *Elm* |
| 8:40 – 10:00 pm | Ice Breaker | *Elm* |

**SATURDAY – 7TH FEBRUARY 2026**

| | | |
|---|---|---|
| 8:00 – 10:00 am | Registration | *Lobby* |
| 9:00 – 5:00 pm | Poster Session | *Elm* |
| 8:20 – 10:00 am | Session 6: Advancing critical mineral development in Atlantic Canada | *Maple* |
| | Session 4: Educational outreach | *Aspen* |
| 8:00 – 10:00 am | Session 3: Advances in Appalachian tectonics: insights from field and laboratory studies | *Birch* |
| 10:00 – 10:20 am | Coffee Break & Poster Session | *Lobby* |
| 10:20 – 12:00 pm | Session 6: Advancing critical mineral development in Atlantic Canada | *Maple* |
| | Session 3: Advances in Appalachian tectonics: insights from field and laboratory studies | *Birch* |
| 10:20 – 11:20 am | Session 4: Educational outreach | *Aspen* |
| 12:00 – 2:00 pm | AGS Luncheon & Annual General Meeting | *Oak* |
| 2:00 – 3:40 pm | Session 6: Advancing critical mineral development in Atlantic Canada | *Maple* |
| | Session 2: Sedimentological and paleontological applications in advancing a sustainable energy future | *Aspen* |
| | General: Geoscience research developments | *Birch* |
| 3:40 – 4:00 pm | Coffee Break & Poster Session | *Lobby* |
| 4:00 – 6:00 pm | Session 6: Advancing critical mineral development in Atlantic Canada | *Maple* |
| | Session 2: Sedimentological and paleontological applications in advancing a sustainable energy future | *Aspen* |
| 4:00 – 6:20 pm | General: Geoscience research developments | *Birch* |
| 6:00 – 6:40 pm | Judges meeting | *Maple* |
| 7:00 – 9:00 pm | Banquet and awards gala | *Oak / Elm* |

## PROGRAM AT A GLANCE

| | Maple | Aspen | Birch |
|---|---|---|---|
| Friday<br>4:00 – 6:00 pm & 8:00 – 10:00 pm<br>Saturday<br>9:00 – 5:00 pm | **Poster Session**<br>*Elm* | | |
| Friday<br>6:00 – 8:20 pm | **Session 1**<br>(6:00 – 8:00) | **Session 5**<br>(6:00 – 8:40) | **Session 3**<br>(6:00 – 8:40) |
| Friday<br>8:40 – 10:00 pm | **Ice Breaker**<br>*Elm* | | |
| Saturday<br>8:20 – 10:00 am | **Session 6**<br>(8:20 – 10:00) | **Session 4**<br>(8:20 – 10:00) | **Session 3**<br>(8:00 – 10:00) |
| Saturday<br>10:00 – 10:20 am | **Coffee Break & Poster Session**<br>*Elm* | | |
| Saturday<br>10:20 – 12:00 pm | **Session 6**<br>(10:20 – 12:00) | **Session 4**<br>(10:20 – 11:20) | **Session 3**<br>(10:20 – 12:00) |
| Saturday<br>12:00 – 2:00 pm | **AGS Luncheon & Annual General Meeting**<br>*Oak* | | |
| Saturday<br>2:00 – 3:40 pm | **Session 6**<br>(2:00 – 3:40) | **Session 2**<br>(2:00 – 3:40) | **General**<br>(2:00 – 3:40) |
| Saturday<br>3:40 – 4:00 pm | **Coffee Break & Poster Session**<br>*Elm* | | |
| Saturday<br>4:00 – 6:20 pm | **Session 6**<br>(4:00 – 6:00) | **Session 2**<br>(4:00 – 6:00) | **General**<br>(4:00 – 6:20) |
| Saturday<br>7:00 – 9:00 pm | **Banquet & Awards Gala**<br>*Oak & Elm* | | |

## POSTERS AT A GLANCE

**Set Up:** Friday February 6th: 1:00 – 4:00 pm. Poster boards are 4 x 8 ft (120 x 240 cm) and push pin friendly.
**Sessions:** Friday February 6th: 4:00 – 6:00 pm and 8:20 – 10:00 pm. Saturday February 7th: 9:00 – 4:00 pm.
**Student Awards:** All student presenters are eligible for the best poster awards. Students are evaluated on their abstract, clear purpose and conclusions/summary, layout, and merit.
* = Undergraduate student ** = Graduate student

**General: Geoscience research developments**

**Eric Bechard*, Jacob Hanley, Delaney Carter, Katie Cottreau-Robins**
A blast furnace from the past: using Renaissance-period smelting techniques and ore sources to assess stable copper isotope fractionation for contact period L'nu artifact provenance studies

**Aaron L. Bustard, Amirabbas Karbalaeiramezanali, Dustin R.L Dahn, Ayalew Gebru**
Geochronology and petrogenesis of granitoids and related critical mineral systems in New Brunswick

**Jiawen Jiang**, Haijun Yu, David Lentz, Wen-Chang Li**
Gold enrichment in porphyry Cu-Au systems: insights from LMCE behavior in the Late Triassic Zhongdian arc, Sanjiang region, SW China

**Jessica MacIsaac*, Edward J. Matheson, Jason Loxton, Mo E. Snyder**
Context matters: examining soft-sediment deformation structure terminology with insights from the Pomquet Formation

**Graydon MacIsaac*, Jason Loxton, Edward (Ted) Matheson**
Can free software produce high-quality Virtual Outcrop Models?

**Alex MacKay**
Research opportunities in Nova Scotia geoscience: hyperspectral and RGB drill core imaging for advanced research

**Bailey Malay, Lucy L Smith, Matthew R Stimson, Robert A Gastaldo, Brian L Hebert, Margaret L Scott, Duncan McLean, R. Andrew MacRae, John H Calder, Steven J Hinds, Adrian F Park, Page Quinton, Michael Rygel, Tetsuto Miyashita, Hillary Maddin**
The oldest known dipluran associated with a new diverse assemblage of invertebrate body fossils preserved in a lycopod stump from the Carboniferous (Moscovian) Clifton Formation of New Brunswick, Canada

**Kayla Youngchief*, Graydon MacIsaac, Zailynne Durant, Edward (Ted) Matheson**
Seeing inside basal Windsor Group microbial reefs: serial-slab-based 3D reconstruction

**Lauren T. O'Reilly**, Brett D. Walker, Owen A. Sherwood**
Dissolved inorganic carbon stable and radiocarbon isotope distributions in slope waters of Nova Scotia and Southern Newfoundland

**Eve Pole*, Ian Spooner, Sarah Hines, Nelson O'Driscoll**
Arsenic accumulation in alder trees at a legacy gold mine tailings impoundment in southwest Nova Scotia: implications for environmental risk

**Jodie Stephens*, Jacob Hanley, Catherine Cottreau-Robins, Tim Fedak**
Strengthening geochemical provenance studies of pre-contact L'nu artifacts through the chemical homogeneity of natural copper samples at Cape d'Or Nova Scotia using laser ablation-inductively coupled plasma-mass spectrometry

**Emma M. Wehbe*, Matthew R. Stimson, Coady C. Roach, Lauren E. Wheaton, Emily Theben, Dave Keighley, Paul Olsen, Steven J. Hinds, Adrian Park, Grant D. Wach**
On the discovery of Triassic aged invertebrate and vertebrate ichnofossils from Melvin Beach, New Brunswick

**Coady Roach, Emma Wehbe, Emily Theben, Lauren Wheaton, Dave Keighley, Grant Wach**
Fundy Basin reservoir characterization for geological carbon storage

**Sana Salehi, Lauren Wheaton, Grant Wach**
Carbon sequestration and geological storage: Atlantic Canada's route to net-zero

**Session 1: Ongoing developments in coastal and marine geoscience in Atlantic Canada**
Chairs: Cameron Greaves, Victoria Watson

**Ethan Geraci**, Ian Spooner, Mark Mallory**
Antifouling paint particles as a source of metal and microplastic pollution in harbour sediments: Chester Back Harbour, Nova Scotia

**Brette Harris, Eric Hutton, Noah Slaney, Jaimee Hodgson, Simone Booker, Erin Adlakha, David Lowe, Hilary Corlett**

Preliminary petrographic and micro XRF insights into the origin and diagenetic evolution of siderite in the Ben Nevis Formation, Jeanne d'Arc Basin, offshore Newfoundland

**Cliff Stanley, Anna Kiefte**

Nova Scotia hurricanes leave no Peggy's Cove stones un-turned

**Session 2: Sedimentological and paleontological applications in advancing a sustainable energy future**

Chairs: Lynn Dafoe, Vânia Correia, Jade Atkins

**Kasia Chmiel****

Analysis of reef island building, sediment Production and Island Elevation, Utila, Honduras

**Session 3: Advances in Appalachian tectonics: insights from field and laboratory studies**

Chairs: Deanne van Rooyen, Sandra Barr, Chris White

**Sandra M. Barr, Deanne van Rooyen, Chris E. White, Michael A. Hamilton, Susan C. Johnson, Adrian F. Park, James L. Crowley**

Toward understanding geological relations in southern New Brunswick, Canada, one U-Pb zircon date at a time

**Leslie Boateng-Dwomoh**, Deanne van Rooyen, Chris E. White**

Lithology, geochronology, and tectonic setting of the Rockville Notch Group in the western Meguma terrane

**Kiersty M Malay**, Donnelly B Archibald, James Conliffe, James L Crowley**

Age and petrogenesis of Devonian peraluminous plutons in southwestern Newfoundland

**Session 4: Educational outreach**

Chair: Tracy Webb

**Tim Fedak**

Results of the Geoheritage Summer Institute and Geodiversity Day in the Cliffs of Fundy UNESCO Global Geopark

**Session 5: Terrestrial and marine surface processes in Atlantic and Arctic Canada**

Chairs: John Gosse, Roger Paulen

**Emma McCarron*, John Gosse**

Evaluating the cosmogenic nuclide catchment erosion rate method on the Margaree River, Cape Breton, NS

**Session 6: Advancing critical mineral development in Atlantic Canada**

Chairs: Fazilat Yousefi, Niyayesh Khorshidi, Jacob Hanley, Michael Parsons, Jared Butler

**Marcela Barrera-Cortes**, David R. Lentz, Kathleen G. Thorne**

Lithogeochemical discrimination of tungsten-associated intrusive rocks using pXRF, southwestern and central New Brunswick, Canada

**Chloe Oxner*, Jacob Hanley, Sarah Speight, Geena Morse**

Characterizing the evolution and magmatic endowment of the Mount Douglas and McDougall Brook granite suites, southwestern New Brunswick

**Zane Aldeen Rahabi**, David Lentz, Tania Martins, Lee Groat**

Metasomatic alteration around pegmatites in the Cat Lake-Winnipeg River pegmatite field, southeastern Manitoba: insights from exocontact cesium enrichment

**Laura Riendeau*, Donnelly Archibald, Jesse McNichol**

Exploring the influence of rock geochemistry on biofilm composition in a lithium pegmatite system using metabarcoding

**Manju Sati, Tania Martins, Christopher R.M. McFarlane, David Lentz, Pura Alfonso**

Distribution and form of gold-silver in the Paleoproterozoic Lalor VMS deposit, Manitoba: preliminary analysis of precious-metal enrichment processes

## ORAL PRESENTATIONS AT A GLANCE

**Set Up & Delivery:** Presentations should be prepared using wide-screen format, and we recommend .pps or .ppsx to ensure symbols and graphics transfer appropriately. Please arrive to your session room 15 minutes early (before all sessions in that block start) to load presentation onto laptop. Presentation slots are 20 minutes: 15 minutes to present and 5 minutes for questions. Session chairs are reminded to keep speakers on schedule using provided time indicators and to accommodate judging of student speakers.

**Student Awards:** All student presenters are eligible for the best presenter awards. Students are evaluated on their abstract, presentation (introduction, flow, conclusions, timing, speaking), slides, and merit.

* = Undergraduate student ** = Graduate student

**FRIDAY FEBRUARY 6TH**

**Session 1: Ongoing developments in coastal and marine geoscience in Atlantic Canada**

Chairs: Cameron Greaves, Victoria Watson *Maple*

**6:00 pm** **Jade Chung, Victor Weber, Maeve Story, Diane Baxter**
Understanding of geohazards and constraints for development of Nova Scotia's designated offshore Wind Energy Areas

**6:20 pm** **Anna Ryan**
Evolving shorelines: update on Nova Scotia's coastal monitoring program

**6:40 pm** **Cameron Greaves**, Jordan B.R. Eamer, Vittorio Maselli**
Evidence for widespread barrier overstepping in coarse-clastic paraglacial coastlines: insights from Chedabucto Bay, Nova Scotia

**7:00 pm** **Brette Harris, Kelly Rozanitis, Jeffrey Kavanaugh, Murray Gingras**
Spatial Distributions of Surface Textures, Sedimentary Structures, and Neoichnological Traces in the Bay of Fundy, Canada

**7:20 pm** **Alexis Gauvin*, Unyime Umoh, G. Todd Ventura**
Resolving the effects of circulation structures on microbial diversity in the North Atlantic

**7:40 pm** **David J.W. Piper**
Interpreting coastal landscapes for the Cliffs of Fundy Geopark: new geoscience insights

**Session 5: Terrestrial and marine surface processes in Atlantic and Arctic Canada**

Chairs: John Gosse, Roger Paulen *Aspen*

**6:00 pm** **Lauren MacLellan**, John Gosse, Alan Hidy**
Quaternary erosion of the Canadian Shield from a 250-m 36Cl depth profile in the Sudbury Igneous Complex

**6:20 pm** **Bailey R. Grondin**, Alexandre Chiasson, Alejandro Alvarez, Steven V. Kokelj, Duane G. Froese**
Surficial geology and permafrost conditions within the involuted terrain near Tuktoyaktuk, Northwest Territories, Canada

**6:40 pm** **Kynan Hughson**
The diverse morphology and internal structure of North American pingos reveals complex ice growth and loss

**7:00 pm** **Shannon Hegger*, Kynan Hughson, Gilles Ngoran**
Characterizing the geomorphology and dynamics of potential rock glaciers in parc national de la Gaspésie using LiDAR, thermal imaging, and GPR

**7:20 pm** **Syed Bukhari**, Nick Eyles, Roger Paulen, Lavanecha Chandran, Denise Brushett**
Mapping of glacial erratic boulders for mineral exploration in southwestern Nova Scotia using ultra-high resolution LiDAR

**7:40 pm** **Rowan Norrad*, Shannon Sterling, Ian Spooner**
Assessing the impacts of river-based carbon sequestration: effects of river alkalinity enhancement on dissolved metal concentrations in the West River, Nova Scotia

**8:00 pm** **Melissa S. Schwab, Claudia I. Czimczik, Shawn A. Pedron, Jeffrey M. Welker**
Are we digging deep enough to get permafrost carbon?

**Session 3: Advances in Appalachian tectonics: insights from field and laboratory studies**

Chairs: Deanne van Rooyen, Sandra Barr, Chris White *Birch*

**6:00 pm** **J. Brendan Murphy, Rob A Strachan, William J Collins, Donnelly B Archibald, Jacob Hanley, Geena M Morse**
Post-accretionary emplacement of Meguma terrane granitoid plutons: transition from dextral transpression to transtension?

**6:20 pm** **Karen Brookman*, Deanne van Rooyen, Chris White**
Timing and kinematics of deformation relative to contact and regional metamorphism in the Tor Bay area, Nova Scotia, Canada

**6:40 pm** **Lauren DiPietro*, Richard Cox**
Chlorite compositions, prograde metamorphism, and gold-related trace elements

**7:00 pm** **Rowan Kennedy*, Deanne van Rooyen, Chris E. White**
Deformation and metamorphism in the southernmost Chebogue Point shear zone of the Meguma terrane, Nova Scotia, Canada

**7:20 pm** **Jared P. Butler, Antoine Godet, Jamie A. Cutts, Dawn A. Kellett**
Turning up the heat: garnet chemistry and phase equilibria constraints on high-temperature, low-pressure metamorphism in the southwestern Meguma terrane

**7:40 pm** **Jillian Kendrick, Charbel Abou-Khalil**
Preliminary investigation of the metamorphic gradient in the southwestern Meguma terrane, Nova Scotia

**8:00 pm** **Rebecca Jamieson, Sandra Barr, Chris White, Deanne van Rooyen, Donnelly Archibald**
What's REALLY under the Meguma terrane? A fresh look at xenoliths from the Eastern Shore dykes

**8:20 pm** **Cees van Staal, Sandra Barr, Chris White, Deanne van Rooyen, John Waldron**
Provenance and tectonic evolution of the Meguma terrane, northern Appalachian orogen

**ICE BREAKER & POSTER SESSION 8:40 – 10:00 pm** *Elm*

**SATURDAY FEBRUARY 7TH**

**Session 6: Advancing critical mineral development in Atlantic Canada**

Chairs: Fazilat Yousefi, Niyayesh Khorshidi, Jacob Hanley, Michael Parsons, Jared Butler *Maple*

**8:20 am** **Tania Martins**
Minerals and metals critical for the energy transition in Canada
*Please note this is a double-slot talk and will end at 9:00 am*

**9:00 am** **Michael B. Parsons, Duane C. Petts, Jeanne B. Percival, Terry C. Cheng, Julie Deriaz**
Critical mineral distribution and resource potential in tailings from the abandoned Stirling Zn-Pb-Cu-Au-Ag Mine, Nova Scotia

**9:20 am** **Niyayesh Khorshidi**, Michael B. Parsons, David R. Lentz**
Critical mineral potential of historical antimony tailings in Atlantic Canada: a case study from the Lake George mine, New Brunswick

**9:40 am** **Peter Rogers, Robert Stewart**
Nova Scotia critical minerals opportunity

**Session 4: Educational outreach**

Chair: Tracy Webb *Aspen*

**8:20 am** **Dirk Werle, Guy Aubé, Jonathan Lajoie, Dalia Laoubi, Janin Huard**
Sharing Earth observation satellite technology and Indigenous mapping knowledge: recent Canadian Space Agency training activities in Atlantic Canada

**8:40 am** **Jason Loxton**
Who takes a natural disasters class? (And where does it take them?)

**9:00 am** **Scott Preston, Katie McDonough**
Designing a geoscience strategy board game

**9:20 am** **Alex MacKay**
The human element: why emotion leads geoscience communication

**9:40 am** **Louise Leslie, Aaron C. Elser**
Rocks in the classroom: insights from teacher workshops and school visits

**Session 3: Advances in Appalachian tectonics: insights from field and laboratory studies**
Chairs: Deanne van Rooyen, Sandra Barr, Chris White *Birch*

**8:00 am** **Gabriel Santos,** Ivan Yip, Hamish Sandeman
Subduction initiation within the Penobscot back-arc basin: evidence from the Great Bend Complex, central Newfoundland

**8:20 am** **Connor Steele*, Shawna White, Keaton Markham, Sebastian Kommescher**
Provenance of metasedimentary units in the Laurentian Long Range Inlier, west Newfoundland: Evidence of a shared history with the peri-Laurentian Dashwoods block

**8:40 am** **Noah Slaney**, David Lowe, Nicolas Gomez**
The Cambrian Hawke Bay Event of the Eastern Laurentian Margin in Western Newfoundland

**9:00 am** **Keaton Markham**, Shawna White, Mo Snyder, Sebastian Kommescher**
Deciphering the post-Grenvillian geological history in the Long Range Inlier, West Newfoundland: implications on gold mineralization

**9:20 am** **Dylan J. McKeen**, Deanne van Rooyen, Sandra M. Barr, Chris E. White, Robert P. Raeside**
Age and tectonic evolution of the Clyburn Brook Formation, Nova Scotia, Canada

**9:40 am** **Chunzeng Wang, Amber Whittaker, Robert Marvinney**
The re-established Lochkovian Seboomook Group and the onset of Acadian arc volcanism in the northern Maine Appalachians

**COFFEE BREAK & POSTER SESSION 10:00 – 10:20 am** *Lobby*

**Session 6: Advancing critical mineral development in Atlantic Canada**
Chairs: Fazilat Yousefi, Niyayesh Khorshidi, Jacob Hanley, Michael Parsons, Jared Butler *Maple*

**10:20 am** **Fazilat Yousefi, David R. Lentz, Kathleen G. Thorne**
Petrogenesis and Geochemical Evolution of Late Devonian Peralkaline A-Type Granites in Southwestern New Brunswick: insights from the Welsford, Parks Brook, and the Jake Lee Alkali Granites

**10:40 am** **Adrian F. Park, Steven J. Hinds, Susan C. Johnson, Steven L. E. Rossiter, Aylalew Gebru**
Tectonic framework for MIAC (IOCG) mineralization systems in southern New Brunswick

**11:00 am** **Jenna Rees*, David Lentz, Fazi Yousefi**
Petrogenetic analysis of Neoproterozoic NYF pegmatites found in Perch Falls quarry, South-central New Brunswick: insight from petrology, lithogeochemical signatures, and zircon analysis

**11:20 am** **Jacob Hanley, Geena Morse, Anna Terekhova, Brendan Murphy**
Mafic-ultramafic melt inclusions in early magmatic apatite record low degrees of partial melting of a critical metal-enriched, suspected Neoproterozoic basement, Mersey Point, Nova Scotia

**11:40 am** **Rick Horne, Daniel Kontak**
The East Kemptville Sn(-Ag-Cu-Zn) Domain: a potential world class Sn-In-Li-Rb district

**Session 4: Educational Outreach**
Chair: Tracy Webb *Aspen*

**10:20 am** **Hilary Corlett**
Lived experience navigating the geosciences and field-based research with a physical disability: the good, the bad, and the things that drive me mad

**10:40 am** **Lea M.A. St John, Catrina E. Russell**
A history mystery: "who the heck is Carl Steinhammer?!"

**11:00 am** **Maureen Matthew, Natasha MacAdam, Maylia Parker**
Your path to professional geoscience: education, licensure, and careers

**Session 3: Advances in Appalachian tectonics: insights from field and laboratory studies**
Chairs: Deanne van Rooyen, Sandra Barr, Chris White *Birch*

**10:20 am** **John Waldron, Sandra Barr, Chris White, Deanne van Rooyen, Phil McCausland, Chunzeng Wang**
Deconstructing the "Iapetus suture": diachronous accretion of terrane assemblages in the Appalachian-Caledonide collage

**10:40 am** **Susan Johnson, Ayalew Gebru, Adrian Park, Steven Rossiter**
A provisional stratigraphic revision of the Neoproterozoic–Cambrian succession in the Caledonian Highlands, southeastern New Brunswick

**11:00 am** **Alex M. Welles*, Joseph White, Steven Hinds, Chris McFarlane, Adrian Park**
Microscale deformation and metamorphism of Neoproterozoic granitoids in northern Caledonia Highlands, Stuart Mountain

**11:20 am** **Tiernan Davies*, Sandra Barr, Chris White, Deanne van Rooyen**
Distinguishing Tonian and Ediacaran rocks in the northern Cobequid Highlands, Nova Scotia, Canada

**11:40 am** **Dana Šilerová**, Dawn Kellett, Shawna E. White, Catherine Mottram, Kyle P. Larson**
Geochronological and microstructural analysis of the Cobequid-Chedabucto deformation corridor

**AGS LUNCHEON & ANNUAL GENERAL MEETING 12:00 – 2:00 pm** *Oak*

**Session 6: Advancing critical mineral development in Atlantic Canada**
Chairs: Fazilat Yousefi, Niyayesh Khorshidi, Jacob Hanley, Michael Parsons, Jared Butler *Maple*

**2:00 pm** **Anna Terekhova**, Jacob J. Hanley, Jim Crowley**
Zircon geochronology and geochemistry in variably endowed subphases of the Davis Lake Pluton, South Mountain Batholith, Nova Scotia

**2:20 pm** **Geena Morse*, Anna Terekhova, Jacob Hanley, James Crowley, Brendan Murphy**
Zircon chemistry-geochronology and melt inclusion constraints on the origin and critical metal endowment of late Devonian granitoid in the Port Mouton Pluton, Meguma Lithotectonic Zone, Nova Scotia, Canadian Appalachians

**2:40 pm** **Michael Powell**, James Brenan**
Mineralogical and geochemical zonation of the South Mountain Batholith, NS, with applications to mineral resource prospectivity by cosine similarity mapping

**3:00 pm** **Daniel J. Kontak**
Feldspars as monitors of fluid-mediated ore processes in magmatic-hydrothermal critical-metal deposits: theory and application

**3:20 pm** **Claude Nambaje, Christopher R.M. McFarlane, Tania Martins, Max Kaczmer, Lee A. Groat**
Using apatite chemistry to distinguish Li-Cs-Ta-fertile and barren pegmatites

**Session 2: Sedimentological and paleontological applications in advancing a sustainable energy future**
Chairs: Lynn Dafoe, Vânia Correia, Jade Atkins *Aspen*

**2:00 pm** **Bill Richards, Fraser Keppie, Helen Cen, Grant Wach**
Quantitative assessment and risk analysis of Geologic Carbon Storage potential in the Triassic-Jurassic Fundy Subbasin

**2:20 pm** **Hilary Corlett**
Evaluating subsurface carbonate reservoirs for $CO_2$ storage

**2:40 pm** **John Carey, Paul Durling, Peter Giles, Zelia Pereira, Marcia Mendes, Vania Correia, Rob Fensome**
Lithology and thickness variations in Lower Pennsylvanian rocks of the southern Maritimes Basin

**3:00 pm** **Bill Richards, Fraser Keppie, Helen Cen, Grant Wach**
3D geocellular modeling linking sedimentary, structural and diapiric architecture to geothermal potential: Cumberland Basin and Sable Subbasin, Nova Scotia

**3:20 pm** **Sydney Thompson*, Lexie Arnott, Jade Atkins**
A Late Carboniferous myriapod from the Joggins Fossil Cliffs UNESCO World Heritage Site

**General: Geoscience research developments** *Birch*

**2:00 pm** **Margaret Scott**, Matt Stimson, Bailey Malay, Brian Herbert, Olivia King, Lynn Dafoe, Robert Gastaldo, John Calder, Mike Rygel, Page Quinton, Lucy Smith, Kayla Gerard, Luke Allen, Keenan Richard, Spencer Lucas, Hilary Maddin**
Ichnofaunal diversity of the Pennsylvanian-aged Clifton Formation, including the first documented trace fossil assemblage from within a hollowed lycopod stump, Clifton, New Brunswick, Canada

**2:20 pm** **Luke Allen*, Rowan Norrad, Matthew Stimson, Olivia King, Dave Keighley, Steven Hinds, Adrian Park, Bailey Malay**
Ichnology and sedimentology of the middle Pennsylvanian Minto Formation at Robertson Point, central New Brunswick: implications for paleobiodiveristy, provenance and paleoenvironmental settings

**2:40 pm** **Kayla Gerard*, Margaret Scott, Matt Stimson, Bailey Malay, Steven Hinds, Adrian Park, Lynn Dafoe**
On the discovery of a large Taenidium burrow from the Clifton Formation in New Brunswick

**3:00 pm** **Zailynne Durant*, Ted Matheson**
Cryptic microbial carbonates of the basal Windsor Group: a sedimentologic and petrographic reappraisal of the Macbeth Brook Formation, Cape Breton

**3:20 pm** **Emanuel de Gante Carrillo, Karl Butler, Kerry MacQuarrie**
Separating advective from conductive heat transport signatures in Distributed Temperature Sensing (DTS) data for dam seepage monitoring

**COFFEE BREAK & POSTER SESSION 3:40 – 4:00 pm** *Lobby*

**Session 6: Advancing critical mineral development in Atlantic Canada**
Chairs: Fazilat Yousefi, Niyayesh Khorshidi, Jacob Hanley, Michael Parsons, Jared Butler *Maple*

**4:00 pm** **Roger Paulen, Beth McClenaghan, Chris Beckett-Brown, Denise Brushett, Jessey Rice**
Glacial dispersal from the Brazil Lake lithium-cesium-tantalum pegmatites, southwest Nova Scotia

**4:20 pm** **Joshua Jackman**, Daniel J. Kontak, Jacob J. Hanley, Robert A. Creaser, Jonathon Toma**
A >360 Myr history of polymetallic vein formation at Cobalt-Gowganda (Ontario) and relevance to Nova Scotia

**4:40 pm** **Chunzeng Wang, David Lentz, Amber Whittaker, Robert Marvinney**
Significance of the first documented Devonian sedimentary manganese mineralization in the Lower Seboomook Group in northern Maine

**5:00 pm** **Marcos Zentilli, Jacob Hanley, Juan Valdés-Edwards**
First intrusion-related Mo-Bi-Te-Au polymetallic system recognized in Chilean Patagonia

**5:20 pm** **Peter Rogers**
Looking for a deeply buried new Walton deposit:across Iapetus and into the Carboniferous Basins of Eastern North America

**5:40 pm** **Sahroz Khan, Yana Fedortchouk**
Rare earth and Nb enrichment in Kimberlite Perovskite: insights from the Lac de Gras Kimberlites, Canada

**Session 2: Sedimentological and paleontological applications in advancing a sustainable energy future**
Chairs: Lynn Dafoe, Vânia Correia, Jade Atkins *Aspen*

**4:00 pm** **Steven Hinds, Adrian Park, Matt Stimson, Andrew MacRae, Olivia King**
Revised structural and stratigraphic correlation of the Boyd Creek tuff of the eastern Moncton Subbasin, southeastern New Brunswick

**4:20 pm** **Ricardo L. Silva**
Integrating coastal environments into our understanding of major Mesozoic carbon cycle perturbations

**4:40 pm** **Stephaniie Erhunmwunsee**, Todd Ventura, Andrew MacRae**
Organic geochemical analysis of potential intra-salt E. Jurassic oil shows of the Scotian Basin

**5:00 pm** **David Lowe, Noah Slaney, Hodgson Jaimee, Eric Hutton, Brette Harris, Hilary Corlett**
A review of carbonate cementation in the syn-rift strata of the Jeanne d'Arc Basin: challenges, models, and the potential for scalability using hyperspectral data

**5:20 pm** **Vânia Correia, Robert A. Fensome, Lynn T. Dafoe, R. Andrew Macrae, Graham L. Williams, Carla Skinner, John Carey, Ricardo L. Silva**
Early Cretaceous palynoevent scheme for the Scotian Margin: application to offshore geological carbon storage and other energy transition studies

**5:40 pm** **Lynn T. Dafoe, Mark E. Deptuck, Robert A. Fensome, D. Calvin Campbell, Chris E. White, Jordan B.R. Eamer, Stéphanie Larmagnat, Vânia Correia, Qingmou Li, Kevin MacKillop, Zélia Pereira, Sean Kelly**
Bedrock occurrences tied to Nova Scotia offshore wind energy areas: linking seabed samples to subsurface and onshore geology

**General: Geoscience research developments** *Birch*

**4:00 pm** **Emily Theben*, Richard Cox, James Brenan, Mattea McRaa**
Defining the Geminid Deposit: investigating mineral assemblages, textures, and Ni distribution

**4:20 pm** **Cliff Stanley**
Closure in concentration data can be measured in relative terms

**4:40 pm** **Kari Osfolk*, Richard Cox**
Recording peak metamorphic conditions in garnet-rich schists from the Dalradian highlands of Scotland

**5:00 pm** **Brook Penner*, Zhenhao Zhou**
Depth controls on metamorphic decarbonation: insights from metacarbonate rocks from the Sierra Nevada arc, California

**5:20 pm** **Charbel Abou-Khalil*, Jillian Kendrick**
Apatite for knowledge: what can we learn about the Archean Eon from inclusions found in zircon?

**5:40 pm** **Isaac Bahler*, Shannon Sterling**
Hydraulic controls on $pCO_2$ damping across river steps and cascades under baseline and alkalinity-dosed conditions

**6:00 pm** **Georgia Pe-Piper, David J.W. Piper, Brian Hebert, Angeliki Papoutsa**
Mineralogy and origin of Bay of Fundy agate, Nova Scotia

**JUDGES MEETING 6:00 – 6:40 pm** *Maple*

**BANQUET & AWARDS GALA 7:00 – 9:00 pm** *Oak & Elm*

**Speaker:** Tracy Webb

*Geoscience education through the decades – a look back to look forward*

Tracy is a long-time member of the AGS Education Committee and has been chair for the past several years. She retired from a career as a high-school science teacher (including Geology) in Horton High School, near Wolfville, and now spends more time on general education matters for the AGS when she is not motorbiking across Canada.

## 2025-2026 ANNUAL GENERAL MEETING OF THE ATLANTIC GEOSCIENCE SOCIETY

12:30 p.m., Saturday, 7th February, 2026, Inn on Prince, Truro NS

**AGENDA**

1) Approval of Agenda
2) Approval of minutes of 8th February, 2025, Dartmouth, Nova Scotia
3) Matters Arising from the Minutes
4) Presentation of the Financial Report (P Batson)
5) Appointment of Financial Reviewers for 2026
6) Annual Reports of the 2025 Executive and Committees
    a) Report from the President (C Russell-Dolan)
    b) Report from the Education Committee (T Webb)
    c) Report from the Nova Scotia EdGeo Workshop Group (J Loxton)
    d) Report from the Video Committee (B Grantham)
    e) Report from the Products Committee (R Raeside)
    f) Report from the Awards Committee (K Butler)
    g) Report from the Publications Committee (S Barr)
    h) Report from the *Atlantic Geoscience* editors (S Barr)
    i) Report from the Membership Secretary (A Miller)
    j) Report from the Website and Social Media coordinator (L Dafoe)
    k) Report from CFES representative (S Barr)
    l) Report from Geoheritage Committee (J Loxton)
    m) Report from AGS-Science Atlantic speaker tour coordinator (D van Rooyen)
    n) Report from Travelling Speakers Series (S Watters)
    o) Report from EDI Working Group (L Arnott)
    p) Report from AUGC 2025, St. Francis Xavier University (M Holt)
    q) Report from the Science Atlantic Earth Science Committee (D van Rooyen)
7) Motion to amend bylaws of the Society to remove gender-specific language, remove the term "Executive" as it pertains to the entire Council, including the Geoheritage and IJADE Committees in the list of Standing Committees, where IJADE = Inclusion, Justice, Accessibility, Diversity, Equity. [Proposed revisions are posted separately as a pdf file here or as a Word file here].
8) Motion to approve the Land Recognition Statement (see first page of program)
9) Election of Incoming Executive & Councillors (D van Rooyen)
10) Other Business Arising from Meeting
11) Adjournment

## 2024-2025 ANNUAL GENERAL MEETING OF THE ATLANTIC GEOSCIENCE SOCIETY

12:30 p.m., Saturday, 8th February, 2025, Delta Hotel, Dartmouth, NS

### MINUTES OF MEETING

President Donnelly Archibald called the meeting to order at 12.45 p.m. with approximately 140 members present.

Regrets received: S Barr, K Butler, A Miller.

1) **Approval of Agenda** – D van Rooyen moved, T Webb seconded that the agenda be accepted as distributed. Carried.
2) **Approval of minutes of 3 February, 2024, Moncton, New Brunswick** – D Lentz moved, C Stanley seconded that the minutes be approved as distributed. Carried.
3) **Matters Arising from the Minutes** – no matters arising.
4) **Presentation of the Financial Report 2024** – the financial reports were distributed with the agenda. P Batson moved, H Donohoe seconded, that the Financial Report 2024 be approved. Carried.
5) **Appointment of Financial Reviewers for 2025** – J Gosse (Halifax) and I Spooner (Wolfville) were nominated by D van Rooyen and C White respectively as reviewers for 2025. The reviewers were approved.
6) **Annual Reports of the 2025 Executive and Committees**
    a) **Report from the President** (D Archibald – report circulated with agenda)
    b) **Education Committee** (T Webb – report circulated with agenda)
    c) **Nova Scotia EdGeo Workshop Group** – J Loxton reported that a workshop previously planned for 2024 is now being organized in Cape Breton Island for 2025.
    d) **Video Committee** (B Grantham – report circulated with agenda)
    e) **Products Committee** (R Raeside – report circulated with agenda)
    f) **Awards Committee** (C Russell – report circulated with agenda) Rob Fensome announced the recipient of the Gesner Medal 2025 is Graham Williams. Rob provided a brief summary of Graham's long association with the Society (since its inception) and the medal was presented. Graham responded with thanks and reflections on life with large dogs in Dartmouth.
    g) **Publications Committee** (S Barr – report circulated with agenda)
    h) **Atlantic Geoscience editors** (S Barr – report circulated with agenda)
    i) **Membership Secretary** (A Miller – report circulated with agenda)
    j) **Website and Social Media coordinator** (L Dafoe – report circulated with agenda)
    k) **CFES representative** (S Barr – report circulated with agenda)
    l) **Geoheritage Committee** – J Calder reported that the committee includes himself as chair, T Fedak, and J Loxton, who is assuming the chair in 2025, and spoke on the significance of geoheritage and possible reconsideration of the committee's mandate. The committee's report is appended below.
    m) **AGS-Science Atlantic speaker tour coordinator and Science Atlantic Earth Science Committee** (D van Rooyen – reports circulated with agenda)
    n) **Travelling Speakers Series** (S Watters – report circulated with agenda)
    o) **AUGC 2024, Dalhousie University** (A Jones – report circulated with agenda)
    p) **EDI working group** – J Atkins reported that the group is working on expanding the mandate to include Justice, Equity, Diversity, Inclusion and Accessibility ("JEDIA") and on updating the Society's bylaws. The group is hosting a round table discussion at the 2025 Colloquium.
7) **Election of Incoming Executive and Councillors** (slate circulated with agenda). T Webb reported that a full complement of councillors was provided in the slate. J Atkins nominated from the floor that C Skinner serve on Council. There were no objections to exceeding the stated 22-person maximum in the bylaws for the current year. T Webb moved, G Wach seconded, that the 23 people be approved. Carried.
8) **Adjournment** – D Lentz moved adjournment at 1.45 p.m.

**CONFERENCE LAYOUT**

