GEOGAZETTE

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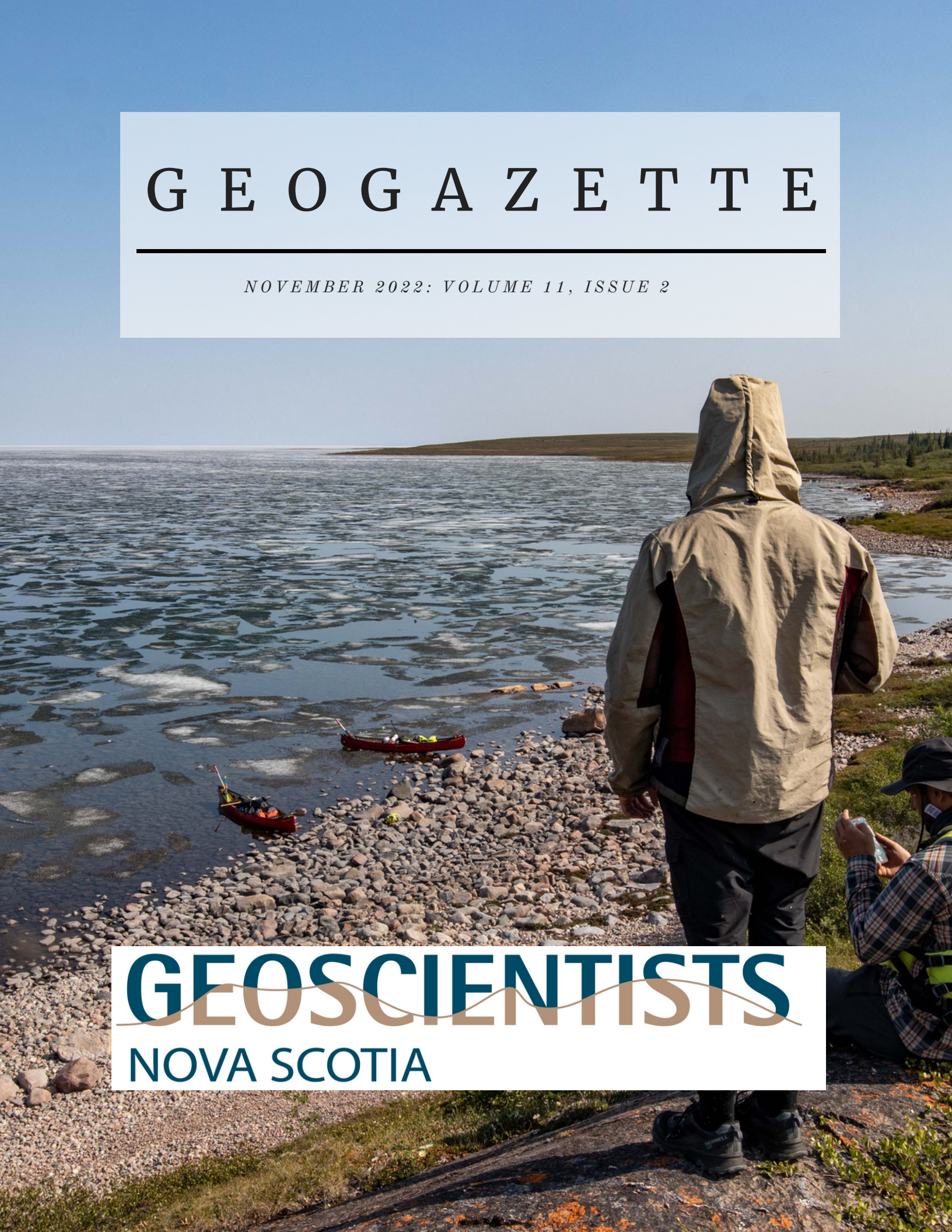


GEOSCIENTISTS NOVA SCOTIA

In this Issue

Photo Front Cover Credit: Noah Booth, P.Geo.
Break-up on Artillery Lake

EDITOR'S LETTER

Fiona Gallacher, P.Geo.

Photo from: Fiona Gallacher's recent trip to Advocate Harbour

Welcome to your November 2022 edition of the GeoGazette. I hope you can sit down, grab a cup of your favourite drink and have a read through the second newsletter of 2022.

2022 has flown by so fast. Can you believe that we only have under two months left before 2023? In a recent trip to Advocate Harbour with my family, I was surrounded by the beauty of raw nature. Nova Scotia is rich in geological beauty. This place is extra special as we were able to walk on the failed rift of the Atlantic Ocean and I was able to tell my kids how these rocks formed. They truly were in awe. I hope you get out and explore this wonderful province and remember to send pictures of your excursions to be featured.

This newsletter has an arrangement of topics: A Stakeholder Briefing note, a Groundwater project, a Member's profile with Rod Tyson, P.Geo. and our feature GeoTravels section is a venture into the Arctic. We also have submissions from our Student and Environmental committees and messages from our President, Executive Director and Registrar.

Our Feature Abstract: *A month-long canoe journey through Canada's most remote and vulnerable region. The route is designed to explore the iconic landscapes of the Northwest Territories and Nunavut by paddling north from the sparse treeline of the taiga shield to the windswept barrens of the southern Arctic. Deep human history, geology and the local flora and fauna are highlighted in this unique northern adventure.*

We are pleased to provide this issue of the GeoGazette. Please feel free to reach out to us with suggestions, articles and great photos to share in the next issue at fgallacher@dillon.ca.

Have a lovely read.

Respectfully, Fiona Gallacher, P.Geo.

FROM THE PRESIDENT'S DESK

Robert W. Cuthbert., P.Geo.

I am about halfway through my mandate as president. I want to tell you about some of the great work happening with the association. Council approved the 2022-2025 Strategic Plan this past year. There are several initiatives which are underway. As part of the modernization of the Association website, a contract has been signed with a web developer to refresh the site and we anticipate that this will be complete before the end of the year.

There is positive progress on the revised Geoscience Profession Act and the new Geoscience Practice Regulations. Our Executive Director has been attending regular meetings with senior staff and the policy group of the Department of Natural Resources and Renewables regarding the Act and bringing it forward to the Order Paper. The next steps will include consultation with stakeholders. We are currently on track for the Spring sitting of the Legislature.

I have had the opportunity to participate in the Annual General Meeting of Geoscientists Canada, which was held in-person for the first time in a few years. It was a great opportunity to speak with the Presidents, Directors and CEO's from other Constituent Associations in Canada. I also participated in the Engineers Nova Scotia Annual General Meeting which was hosted in a hybrid format including in-person and virtual options.

All of the Constituent Associations have expressed a strong commitment to Equity, Diversity, and Inclusion. This was identified in our current strategic plan, and I would like to see a stronger focus for our own association. Please take this message as a call for volunteers to join the Equity, Diversity, and Inclusion Committee. I would like to see this group meet before the end of the year to develop terms of reference and identify some goals for the association.

There are always opportunities for members to volunteer for committees and assist the association with completing the goals identified in the updated strategic plan. It would be great to see more of a social media presence for the association; outreach and education opportunities for grade school students and public; and mentoring and roll-out of the competency-based assessment program. The annual nomination process for council positions will also be starting soon. If you have an interest in any of these initiatives, please reach out and we can have a conversation.

Respectfully,
Robert Cuthbert, P.Geo.
APGNS President

FROM THE EXECTIVE DIRECTOR DESK

David C. Carter., P.Geo., FGC.

Geoscientists Nova Scotia has the privilege to self-regulate the geoscience profession in Nova Scotia. Our members work in diverse industries, contributing significantly to Nova Scotia's economic success and enhancing the quality of life we enjoy. We are a relatively small organization of approximately 300 registrants (P.Geo., LTP, MIT's and CoA's) and we rely on them to support of the elected Council and staff for the successful operation and promotion of our profession in Nova Scotia.

Currently there is limited activity on several committees that assist Council in the daily operation of the Association, in part due to lack of volunteers needed for the committees. So, this is a call for volunteers to take an active role in the Association Task Groups and Committees. Also, nominations are now open for the Executive and Council for the 2023-2024 term.

For example, we are currently working to implement the Competency Based Assessment (CBA) tool that will be used by the Admissions Board in evaluating an applicant's geoscience work experience.This tool will be in place across the country, and we will need experienced members to act as assessors to review and approve submissions. Also, the Chair of the Mining and Energy Committee would like to have the assistance of a co-Chair. We recognize that two-way communications with our members can be a challenge and we would like to have a Communications Committee to direct our efforts. Equality, diversity and inclusion (EDI) was identified as a priority in the current Strategic Plan and we need volunteers for that committee to develop and implement our EDI policy.

You may be interested in:
* Environment Committee,
* Mining & Energy Committee,
* Student Committee,
* Equality, Diversity and Inclusion Committee,
* Admissions Board – Mentorship Committee,
* Social Committee,
* Awards Committee,
* Continuing Professional Development (CPD) Committee,
* Communications Committee – (Social Media coordinator)
* GeoGazette Newsletter Committee,
* Complaints or Discipline Committee, or perhaps,
* I am interested in any of the above

What are the benefits for participation?

- Promotion and education of the public to understand the value, the roles and the responsibilities of our profession;
- Networking with regulators, the public and your fellow members;
- Introducing different perspectives to the Association with the influx of "new blood" to the operation and direction of the Association;
- Fulfilling your Continuing Professional Development (CPD) requirements (an annual requirement to maintain your in-good-standing status);
- Maintaining and updating the standards of our profession to what is expected by the public and regulators; and
- Involvement with the Association and Council on gaining a working knowledge of its operation, making involvement with/on Council less daunting in the future.

If you would like to volunteer for a committee or Council, please contact: exec.director@geoscientststns.ca

Respectfully,
David C. Carter, P.Geo., FGC
Executive Director

FROM THE REGISTRAR'S DESK

David C. Carter, P.Geo.,FGC.
Executive Director and Registrar

Photo from: APGNS

Registration numbers

The total number of APGNS registrants is shown in the table below with reference to the 2021 registration numbers.

APGNS Resister as of October 31, 2022

APGNS Membership	Registrants Oct-22	Registrants Oct-21
P.Geo. Members	206	198
License to Practice (non-resident)	26	26
MIT registrants	19	20
Certificate of Authorization	50	51
Sole Practitioners	22	24
Corporate	28	27
Total Registrants	**303**	**301**

Registration fees – due and payable on or before December 31, 2022.

The 2023 professional registration fees are due and payable on or before December 31, 2022. Continuing Professional Development (CPD) reports are also due at that date. It is considered a professional obligation to ensure that your fees are paid by that date and CPD reporting is mandatory to ensure your continued status as a member-in-good standing. Invoices and CPD forms will be sent out electronically in early Nov, so if you do not see the invoice in your inbox please update your contact information.

Everyone is well aware of the increasing cost of living and the effects of inflation on the cost of doing business, including costs for the Geoscientists Nova Scotia. In light of this, Council has approved a 5% increase in fees and service charges for 2023. Council is aware that this increase is less than the current inflation rate, and it is also less than the fee increases applied by some other regulators (up to 8%), but it reflects our increasing costs.

Competency Based Assessment Tool

In addition to academic training, applicants for professional registration must demonstrate that they have cumulative and progressive geoscience work experience. Until recently, this has been documented through work experience diaries and usually presents a total of at least 48 months of employment. However, as with other geoscience regulators we are moving to assessing an applicant's competency at entry-to-independent professional practice as a more fair, transparent and defensible assessment.

APGNS Council has officially adopted the Competency Based Assessment (CBA) Model Tool for use by the Admissions Board and we hope to have the CBA Tool set up for use in early 2023.

The CBA framework assesses the experience of an applicant against a set of pre-determined competencies. The Tool includes first a self-assessment by the applicant, then a review by the applicant's validators (supervisors), and finally an evaluation by professional assessors on behalf of the Admissions Board. The assessors will receive training on how to assess the competencies of the applicant.

REGISTRAR'S INBOX

Continued

APGNS is developing a CBA Quick Reference Guide to supplement to the Competency Assessment Manual, which is also under development. It is anticipated that these will be available by year-end.

Call for P. Geo. Assessors

APGNS is looking for competency assessors to assist the Admissions Board. If you are a licensed professional geoscientist with at least 5 years' experience, you can contact the Registrar (registrar@geoscientistsns.ca) to learn more about this important volunteer opportunity.

Coastal Protection Act

The Coastal Protection Act and the CPA Regulations are expected to be enacted in early 2023. The CPA mandates that only a Designated Professional (DP) can undertake a Coastal Erosion Risk Factor Assessment (CERFA). The DP must be is a member in good standing of Geoscientists Nova Scotia (P.Geo.), Engineers Nova Scotia (P.Eng.), or the Association of Land Surveyors. The DP will assess the required set back for properties slated for development on behalf of Nova Scotia's 49 municipalities.

APGNS is part of the Technical Focus Group (Bev Smith, P.Geo., FGC, Jeff Parks, P.Geo., FGC, Scott Conrod, P.Geo., and David Carter, P.Geo., FGC), as well as representatives from Engineers Nova Scotia and the Association of Land Surveyors. The group has met three times and we anticipate that there will be one or two more meetings before the end of the year. The group is considering aspects of self-declaration, training courses with pre-course reading, on-line training and possible field training.NSECC will provide regular on-going training and technical support.

NSECC will not directly certify Designated Professionals (DP). Compliance and enforcement will be the responsibility of the professional associations. If you have questions, please contact any one on the APGNS Focus Group.

Geoscientists Canada and the Standards Council

The Canadian Geoscience Standards Council (CGSC) met on Saturday October 19 and Jeff Parks, P.Geo., FGC attended on behalf of Cliff Stanley, P.Geo., FGC, CGSC Representative and David Carter, P.Geo., FGC, Geoscience Admissions Officer (GAO) Representative. (Cliff was not available and David attended the meeting virtually.)

Discussions included the CGSC/GAO review and revisions of the Canadian Work-Environment Experience Competencies. The revisions to the competencies were approved and forwarded to the Board of Directors for approval. There was an update on the revision of the GIT Program Information Guide.Geoscientists Canada is exploring the potential for a common application portal. Consultation with CA's has been completed and a report to the Board of Directors is expected at the November 2023 meeting.

CPD - Geocommunications Course

Through Geoscientists Canada, Geoscientists Nova Scotia has acquired a Continuing Professional Development (CPD) opportunity which allows all our registrants FREE access to Geologize's critically acclaimed course 'Practical Geocommunication' – note that this is normally a US$450 per person value. As the course is on-demand, you can sign up now and start at any point that suits you.

The Geocommunications training helps geoscientists become more effective and powerful public ambassadors for geoscience. This skill is more important today than ever as professionals communicate with broad audiences about the effects and mitigation of climate change; impart knowledge concerning critical minerals; communicate with various stakeholder groups; inspire the next generation of geoscientists in the face of declining post-secondary geoscience enrolment; and so many other important topics.To register please contact the Registrar at registrar@geoscientistsns.ca.

Respectfully,
David C. Carter, P.Geo., FGC.
Registrar

STAKEHOLDER BRIEFING NOTE

Proposed Revisions to the Geoscience Profession Act

David C. Carter, P.Geo.,FGC.
Executive Director and Registrar

The Geoscience Profession Act, with the objective to protect the public, was passed by the Nova Scotia Legislature in 2002. Since that time, the Act has remained unchanged but there have been many changes in the field of self-regulated professions, in the profession of geoscience, and many changes generally in the development of the legal principles applicable to the professions. The current Geoscience Profession Act does not reflect many of these changes and also does not reflect many "best practices" that have been adopted by other self-regulating professions in Nova Scotia and in Canada which have now been largely accepted as the standard for regulation of professions by the courts.

Here are some of the key changes in the proposed Act and Regulations and these documents should be carefully reviewed in addition to this brief summary. The documents will be posted on the Association website (www.geoscientistsns.ca) or are available from the Registrar.

1. Structure of the Legislation

In the proposed legislation, the Act, to be approved by the Legislature, and the Regulations, to be approved by Governor-in-Council / Cabinet are distinguished from the by-laws that will be approved by Council.

This structure reflects the need for the Association to function as the regulator of the profession with responsibility to protect the public interest. There are certain instances where the interests of the registrants may conflict with the public interest focus of the Association as a regulator. The approval process for by-laws reflects a shift toward the Association emphasizing its regulatory role, in addition to its membership / registration role.

2.The Purpose of the Association

Protection of the "public interest" is the key objective of self-regulation and governments want to see and ensure that the professions are regulating themselves in the public interest.

The legislation sets out the objects of the Association to make it clear that the regulation of the profession is done in order to serve and protect the public interest and to preserve the integrity of the profession.

3.Composition of Council

The composition of Council will be set out in the by-laws allowing for flexibility without the necessity of going to government for approval of any changes. It is contemplated that the composition will largely be the same as the current structure, with the exception that the public representatives will be appointed internally by the Association, rather than by Cabinet.

4. Registration

The proposed legislation meets the Canadian Free Trade Agreement (CFTA) and Nova Scotia's Fair Registration Practices Act (FARPA) requirements. There are specific requirements for registration for both those who have been registered elsewhere, and those applying for first time registration. A clear (open, fair, transparent, and objective) appeal process has also been added.

The categories of membership include Member, Geoscientist-in-Training, Licensee, and holders of Certificates of Authorization (for corporations and partnerships engaged in geoscience practice).

Because a "Member" is only one category of membership, the term "registrant" is used throughout the documents to include references to all categories of membership. Also, the designation Member-in-Training (MIT) has been replaced with Geoscientist-in-Training (GIT) to be consistent with other Canadian geoscience regulators.

5.Complaints and Discipline Processes

A flexible and modern complaints and discipline process is set out. Public representatives are included on both the Complaints Committee and the Hearing Committee. The Registrar has the authority to dismiss complaints if they meet certain specified criteria. There is a clear delineation between the role of a Complaints Committee that operates in an investigative capacity, and a Hearing Committee that operates in a hearing capacity if a matter is referred for a hearing from the Complaints Committee. Alternate dispute resolution mechanisms are encouraged, and wider powers have been given to the Complaints Committee to resolve matters without the necessity of a hearing.

If a matter is referred by the Complaints Committee for a Hearing, there is a process set out where either the Association or the registrant may propose a settlement to the other before the Hearing Committee process begins.

6.Illegal/Unauthorized Practice

The summary conviction process can be utilized to prosecute an individual who practices or uses a protected title without being registered or licensed. The penalty for a violation is stated to be a fine of not less than $2,000.00 or imprisonment for not more than six months. However, it must be noted that where a violation of the Act continues for more than one day, the offender is guilty of a separate offence, and is therefore liable for a fine of $2,000.00 per each day the offence continues. This can amount to a significant financial penalty, which will serve as a strong deterrent.

7.Registration of Partnerships and Corporate Entities

Any association of persons, an individual operating under a business name, a partnership or a corporation that is engaged in the practice of professional geoscience must apply for and be issued a Certificate of Authorization by the Registrar. The requirements for the Certificate of Authorization will be clearly spelled out in the by-laws.

It is anticipated that the requirements will continue to include payment of an annual fee, providing, confirmation that the geoscience work is carried out under appropriate supervision, and, to protect the public interest, will be expanded to include providing information to show that the certificate holder maintains professional liability insurance.

8.Ultimate Limitation Period

The Act introduces the concept of an ultimate limitation period. To be consistent with the Nova Scotia Limitation of Actions Act the revised Act should incorporate a basic limitation period for all civil claims and an "ultimate" or outside limitation of 15 years from the date of the services provided.

GROUNDWATER PROJECT

Gavin Kennedy, P.Geo., FGC.

Greetings,

I just wanted to let our members know about the availability of an amazing new online resource called the Groundwater Project. The Groundwater Project is a non-governmental organization that aims to advance groundwater knowledge and education across the world by providing online, free, high-quality groundwater educational material.

The Groundwater Project has recruited leading experts from around the world to author books on an impressive range of hydrogeology related subjects.

The project leader, Dr. John Cherry, author of the seminal Freeze and Cherry 'Groundwater' textbook that many of us have consulted over the years, has referred to this initiative as the democratization of groundwater knowledge. Dr. Cherry views the Groundwater Project as part of the solution to address increasing global groundwater management challenges and to mobilize cumulative groundwater knowledge to benefit humanity and the environment. Language can be an important barrier to accessing information, and therefore the Groundwater Project is actively recruiting and employing translators to publish the books in multiple languages, which will increase the reach of the books. The project is also focused on developing educational materials for children, including a social media program where children around the world can "Ask Professor Água" questions about groundwater (see Twitter, YouTube).

John Drage and I recently each contributed an eBook to the project about domestic wells and well record databases. The work involved the synthesis of a wide body of literature, with a focus on our experience in Nova Scotia, while putting the province into the wider global context. The Water Well Record Databases and Their Uses (G. Kennedy) eBook highlights the importance of well record management as a critical component of groundwater and drinking water management programs and provides a roadmap for implementing an effective water well record management system. The Domestic Wells Introduction and Overview (J. Drage) eBook provides an introduction to domestic wells, including their construction, regulation, vulnerability, protection and their valuable role in groundwater research.

As the Groundwater Project continues to grow and evolve, I hope it will be useful for educators and geoscientists alike and have a beneficial impact on the management of this precious resource.

Respectfully,
Gavin Kennedy, P.Geo. FGC

MEMBER PROFILE

Rod Tyson, P.Geo.

1.Tell us about yourself. Where are you from? Where did you go to university? What was your first job (or first few jobs) after University?

I started collecting minerals as an adolescent, being interested in samples my Aunt Joicey had at her cottage near Minden, Ontario. In high school, in Barrie, Ontario I met Bill Christianson who was an avid collector and micro-mounter. Under Bill's influence and the support of my parents I started making field trips to collect minerals and discovered I was good at it.

I went to University of Toronto in 1970 to study geology and obtained a BSc and met my future wife, Helen Ohrt, at the same time. Helen and I moved to Edmonton, Alberta in 1974 for her graduate degrees and we started doing professional field trips with our former classmate, John Gorham, in British Columbia. In 1980 I gave up being employed to pursue a full-time mineral business.

2.Why did you choose Geology?

Actually, I think that Geology chose me, and it was a natural fit from the start. I have been privileged to travel to and collect at many of Canada's remote mineral localities in the Yukon and Northwest Territories – the El Bonanza Mine near Port Radium on Great Bear Lake; the Nanisivik Mine on Baffin Island; Emerald Lake, Yukon; Hart River, Yukon; Bonnett Plume River, Yukon; Rock River, Yukon; and Rapid Creek, Yukon to name a few.

3.What is your current job? What do you like most about your job?

My current job Senior (no pun intended) project geologist for Tysons' Fine Minerals Inc.

4.What do you think is your most significant accomplishment as a geoscientist?

In 2018 I was awarded the American Mineral Heritage Award in recognition of my collecting minerals in Canada. None of this would have been possible without my wife, Helen."

5. Do you have a favorite rock sample? Tell us about it.

Not one, several hundred. Helen and I have over a thousand on display in our shop.
The photo shows the largest lazulite crystal know from the famous Rapid Creek Area of the northern Yukon and I have spent a lot of time in this area over the years. The crystal measures 2.4 cm.

6. If you could tell the public one thing about geoscientists, what would it be?

There is an old adage: "If you didn't grow it, it was mined - and for that we need geoscientists."

Respectfully,
Rod Tyson, P.Geo.

Feature Entry

GATEWAY TO THE ARCTIC EXPEDITION

GeoTravels

Noah Booth, P.Geo.
Dillon Consulting Limited.

On July 8th, 2022, under a burning sun that had not set, where the wind had not blown for five days, I stand on the frozen sheets of Artillery Lake staring blankly at the endless, fuzzy, white horizon. Break up on Canada's arctic lakes linger deep into summer, but even for what's typical, we were not expecting this much. I look through the binoculars to gain a better perspective. It was true, as far as I could see the lake was iced in. What was even more unsettling was the thick milky blue glacier that met the horizon. It took several moments to register what I was seeing. My tripping companions, Alex Traynor, and brothers Kyle and Graham Ereaux, also gazed through the lens in disbelief. What we were witnessing was that of an impressive mirage. The strong contrast between the hot air of the long summer days, and the incredible extent of the cold winter ice pack distorts one's vision enough to create vivid optical illusions that seem real to even the soberest viewer. Luckily, it was just a mirage, but the reality was sinking in that we were chasing break-up and the extent of the ice was unknown. In this first week of our month-long arctic journey we were already questioning if we would be able to make it to the end. Let alone off Artillery Lake.

The plan was to canoe from Great Slave Lake to the Arctic Ocean in 30 days. We would start on Pike's Portage and head north through a handful of the territory's largest lakes (Artillery, Clinton-Colden, Aylmer and Contwoyto) to reach the Mara River. From here we would descend the Mara and Burnside River, cross the Arctic Circle, and finish the trip at Bathurst Inlet, a deep bay on the northern coast of the Canadian mainland.

Photo: Portaging along the Back River

The route was ambitious given our time constraints, but there were significant elements that made the push appealing. The route was designed to be a geographical cross-section of Canada's far north, beginning in the sparse trees of the boreal forest to the barren landscapes of the southern Arctic. The prospect of self-propelled travel across the defined boundaries of the treeline and the Arctic Circle was intriguing as it offered an intimate connection to the distribution of plants, animals and ecosystems in one of Canada's most remote and delicate regions.

The area also has no shortage of rich human history. Pike's Portage, named after the unconventional English explorer of the late-1800s, Warburton Pike, is a 35 km passage made up of seven lakes and eight portages connecting Great Slave Lake to Artillery Lake. The portage has a deep history of being the primary gateway from the boreal forest to the barren lands.

GATEWAY TO THE ARCTIC EXPEDITION

Continued

Photo: Break-up on Artillery Lake

For centuries it has been used by the nomadic aboriginal peoples to reach their annual caribou hunting grounds, and later by European explorers and trappers. Starting the trip with such an intimidatingly long portage is not the typical way to ease oneself into a wilderness journey, though, in this instance, it seemed fitting, perhaps mandatory, to travel in the footsteps of our ancestors across such an iconic passage.

The Contwoyto River marked another historic location that piqued our curiosity. In 1821, Sir John Franklin, better known for his later tragic "Lost Expedition", nearly drowned and lost all his notes trying to cross this river after a failed attempt to survey the Northwest Passage during the Coppermine Expedition (1819-1822). His return journey had his party of 19 trudge across unmapped barrens for nearly three months from the Arctic coast to Fort Enterprise battling starvation, exposure and mutiny. As a result, 11 men perished and Franklin was given the nickname, "The Man Who Ate His Boots". The Contwoyto River proved to be a major crux in their return journey home and other than brief mentions online, not much information was available on the 90 km river flowing out of the southeast arm of Nunavut's 10th largest lake, Contwoyto Lake. For our trip we would travel up this river, documenting its character and seeing for ourselves what Franklin and his men crossed over 200 years ago.

Photo: End of Pike's Portage

The final intrigue was not the natural or human history of the area, but the prospect of exciting and boisterous white-water. The Mara River is a wild and remote river tucked away in the far-reaches of the Arctic. Often overlooked by the neighbouring Burnside and Hood River, the Mara drops quickly in elevation as it winds through deep valleys of ancient windswept bedrock for over 260 km before merging with the Burnside and flowing out to Bathurst Inlet. Whitewater rivers are my favourite way to explore the Canadian wilderness, and the Mara looked to offer all the excitement, remoteness and northern vistas I look for when planning a trip. The Mara and Burnside would mark the final chapter, and coincidently, be the only significant section of the 880 km route where we would be going down-river.

The route proved to be the adventure we all sought out, but the events along the way caused travel to be slower than anticipated. As we worked our way up the giants that are Artillery, Clinton-Colden and Aylmer Lake, the ice persisted. There are a number of factors that contribute to the break-up of ice, but the biggest and most significant is wind. This summer, the weather was calm and the winds did not blow. Typically, a canoeist would be elated by this lull, but ironically it led to our short-comings.

The final nail in the coffin happened on the Back River. Known as Canada's largest arctic waterway, the Back flows just shy of 1000 km from its headwaters on Sussex Lake to Chantrey Inlet on the Arctic Ocean.

GATEWAY TO THE ARCTIC EXPEDITION

Continued

Our team would be traveling just a short portion of its upper stretches to reach the Contwoyto River, but this proved to be the most difficult part of the entire trip. On a map the river looks to be wide and playful with rapids intermittently marked between large pools. In reality, the entire river was a boulder garden that was too shallow to paddle and too long to portage. A one day paddle, turned into a three day overland slog.

With the ice delays on the lakes and the water shortage on the Back River, our window of opportunity to reach Bathurst Inlet was narrowing. The team was beat and the looming decision to alter course weighed heavy on our minds. A fundamental principle on these trips is finding the right balance of work and play, which begins with respecting each team members' expectations.

On the third evening trudging along the shores of the waterless river, with overcast skies and a light breeze, we make the final decision that to reach Bathurst Inlet meant to take too much away from the other experiences. We huddled around the dying flame of the willow scrub fire, in silence and feeling defeated. We decided to end our trip on Contwoyto Lake. Beyond this point, there was no certainty that our float plane would be able to land on the narrow flows of the Mara or Burnside. With commitments back home we were bound to our schedule. The following days were quiet around camp as the team unpacked the new agenda.

Photo: Water levels on the upper Back River

Photo: Noah Booth and Kyle Ereaux tracking their boat up the Contwoyto River

The only down-river section of the route, the "prize" for all the hard-work as it were, was the section we had to cut out. We were going uphill the entire trip. This was a hard pill to swallow, and in our own ways we all questioned what we were doing out here. What was the point?

As it goes in life, there's something good to be found in every tough situation. With the altered course, we were able to slow-down and let go of the burden of a tight-schedule. We spent more time wandering the land, climbing ridges, and exploring the nooks and crannies we would otherwise paddle past. From a far, the flat treeless surface of Canada's arctic may appear desolate, but it is astounding how quickly an intimate connection can be found for those looking. One begins to notice the evidence of life all around through the vivid yellows of fields of ripe fleshy cloud berries, to the arctic bumblebee swaying in the soft arctic light on a flowering fire weed. As you roam, animals break the silence. You may see a lone muskox, stoic in posture and unfazed by your presence, focused on a bushel of arctic willow, or the hysterics of a ringed plover trying to distract you from their vulnerable ground nest. Time and again you come across these magical moments.

The arctic is baffling in its ability to transcend one's thoughts of how such a remote and barren region ought to be. The Gateway to the Arctic expedition was short of its final destination but complete in rich experiences and adventure. The Canadian arctic is truly a special place, and it goes without saying that I will be back to see it again.

Respectfully,
Noah Booth, P.Geo.

STUDENT COMMITTEE

Atlantic Universities Geoscience Conference 2022

Michael Power, P.Geo.

The Fletcher Geology Club hosted the 72nd annual Atlantic Universities Geoscience Conference (AUGC) at Acadia University on October 27-29. Mike Power, P.Geo., Chair of the Student Committee, was asked to serve as a judge for student presentations of senior undergraduate and graduate student geoscience research projects from across Atlantic Canada from paleontology of ancient snails to plastic waste tracking in intertidal ocean environments.

The AUGC is hosted each year by one of the six universities in Atlantic Canada with geoscience programs. It is organized and attended by mainly undergraduate students and provides them with the opportunity to present their current work, learn about local geology, meet members of the broader Atlantic geoscience community, and enjoy the company of like-minded students from across the region. This year over 100 conference registrants gathered in Wolfville for the event. On Thursday evening, registration and a "meet and greet" event was held at the Acadia University Club. On Friday, approximate 75 students participated in one of three field trips: a geological tour of the Wolfville area (led by Sandra Barr and MSc student Amanda Smith), an introduction to the sedimentary, structural, and metamorphic geology in the Mahone Bay area (led by John Waldron, P.Geo.; and Deanne van Rooyen), and an examination of surficial features and geohazards around the Annapolis Valley area (led by Mo Snyder and Aaron Taylor).

On Friday evening, a fast-paced geo-trivia competition was attended by an enthusiastic crowd of students and faculty at the Wolfville Lion's Club, sponsored by the Canadian Society of Exploration Geophysicists and organized by Mo Snyder.

On Saturday, the students as well as faculty from all the universities represented at the conference and other members of the Maritime geoscience community gathered in the lower level of the K.C. Irving Environmental Science Centre on the Acadia campus for 17 oral and 9 poster presentations. They also heard guest speaker Carla Skinner, an Indigenous geoscientist, on the topics of inclusion, diversity, equity, and accessibility in the Earth Sciences. The six judges for the presentations congratulated all the students for their excellent presentations.

In the evening, participants gathered in the Fountain Commons for a celebratory banquet and award presentations, as well as an engaging after-dinner presentation by geologist John Waldron and artist Sydney Lancaster exploring relationships between Art and Time.

Huge thanks to the organizing team, led by Cameron Greaves, for all their hard work to make this conference a huge scientific, educational, and social success and a truly memorable event for all participants!

Respectfully,
Michael Power, P.Geo.

ENVIRONMENTAL COMMITTEE

Scott Conrod, P.Geo.

The Environment Committee remains active throughout 2022. All meetings have been via GoToMeetings or Teams during the year and the participation has been excellent. Members of the committee look forward to in person meetings in the future when everyone feels comfortable getting together. The Environment Committee is always seeking volunteers. The benefit of joining this committee is active members get to connect with other Geoscientists, share concepts and insights about current and future Environment topics in Nova Scotia and across Canada, collaborate and share ideas, and provide continuous improvement and current knowledge for APGNS members from an Environment perspective.

Current members of the Environment Committee are Julie Griffiths, P.Geo. (Shaw Renewables); Danielle Finlayson Bourque, P.Geo. (NSCC); Gavin Isenor, P.Geo. (Dexter Construction); Jonathan Kay, P.Geo. (NSECC); Kim Green, P.Geo. (Woodplc); Beverley Smith, P.Geo. (Dillon); David Carter, P.Geo. (Executive Director APGNS) and Scott Conrod, P.Geo. (Arcadis) who is Chair of the Committee.

The Environment Committee is active with the following topics:

- **APGNS Geoscience Professional Practice Guideline for Conducting Phase 1 and Phase 2 Environmental Site Assessments in Nova Scotia:** The committee is updating the 2013 version of the document which was prepared in comparison with the Nova Scotia Environment (NSE), 2013 Contaminated Sites Regulations **(https://novascotia.ca/just/regulations/regs/envcontsite.htm)** and Protocols **(https://novascotia.ca/nse/contaminatedsites/protocols.asp)** at that time. The Nova Scotia Environment and Climate and Change (NSECC) has updated the Contaminated Sites Protocols in September 2021 along with October 2022 amendments **(https://novascotia.ca/nse/contaminatedsites/docs/contaminated-sites-protocols-notice-of-amendments-2022.pdf**). The committee is modernizing the Geoscience Professional Practice Guideline for Conducting Phase 1 and Phase 2 Environmental Site for 2022 and into the future.

- **NSECC Coastal Protection Act:** NSECC has presented to the committee many times between 2018 and 2021 with respect to the Coast Protection Act (CPA). Climate Change is real and coastal impacts observed during the past few hurricanes, including Hurricane Fiona, provide real time examples for the need to protect Nova Scotia's coastline. Members of the committee and APGNS have attended NSECC engagement/consultation sessions with respect to CPA, designated professionals, and future services and methods required to assess coastlines in Nova Scotia. NSECC CPA information is located at **https://novascotia.ca/coast/**

- **NSECC Guide to Preparing an EA Registration Document for Mining Development in Nova Scotia:** The committee understands NSECC intends to update the 2009 Guide to Preparing an EA Registration Document for Mining Development in Nova Scotia. The committee will be seeking an opportunity to review the revised version and provide feedback to NSECC soon.

Our next planned meeting is December 1, 2022. If you would like to join the Environment Committee, please contact Scott Conrod, Committee Chair, at **scott.conrod@arcadis.com**.

Respectfully,
Scott Conrod, P.Geo.

PHOTOS AND UPDATES

Photos given from Geoscientists Canada Board

1. **Geoscientists Canada Board Members and the Constituent Association CEOs and Presidents from across Canada**

UPDATES

1. **AGS Colloquium**- A reminder that the deadline for submitting proposals for special sessions and workshops or short courses is next week, 9 November. The colloquium is planned for 3rd – 5th February 2023, at the Inn on Prince in Truro.

1. **The 2023 Earth Ring Ceremony** (the Ritual of the Calling) will be held in April 2023. Dates and location will be confirmed. Recent Earth Science graduates and practicing Nova Scotia Geoscientists wishing to become obligated and receive a ring are welcome to request a ring. Please contact Patrick Ryall, P.Geo at Patrick.Ryall@Dal.Ca to place your ring order. Note that the ring is to be worn on the smallest (pinkie) finger of your working hand. Please have your finger sized by a jeweller before ordering.

3. **Kevin Ansdell (outgoing President) presenting award to Jeff Parks Past-President and former Director Nova Scotia**

2. **Geoscientist Canada Board Members**

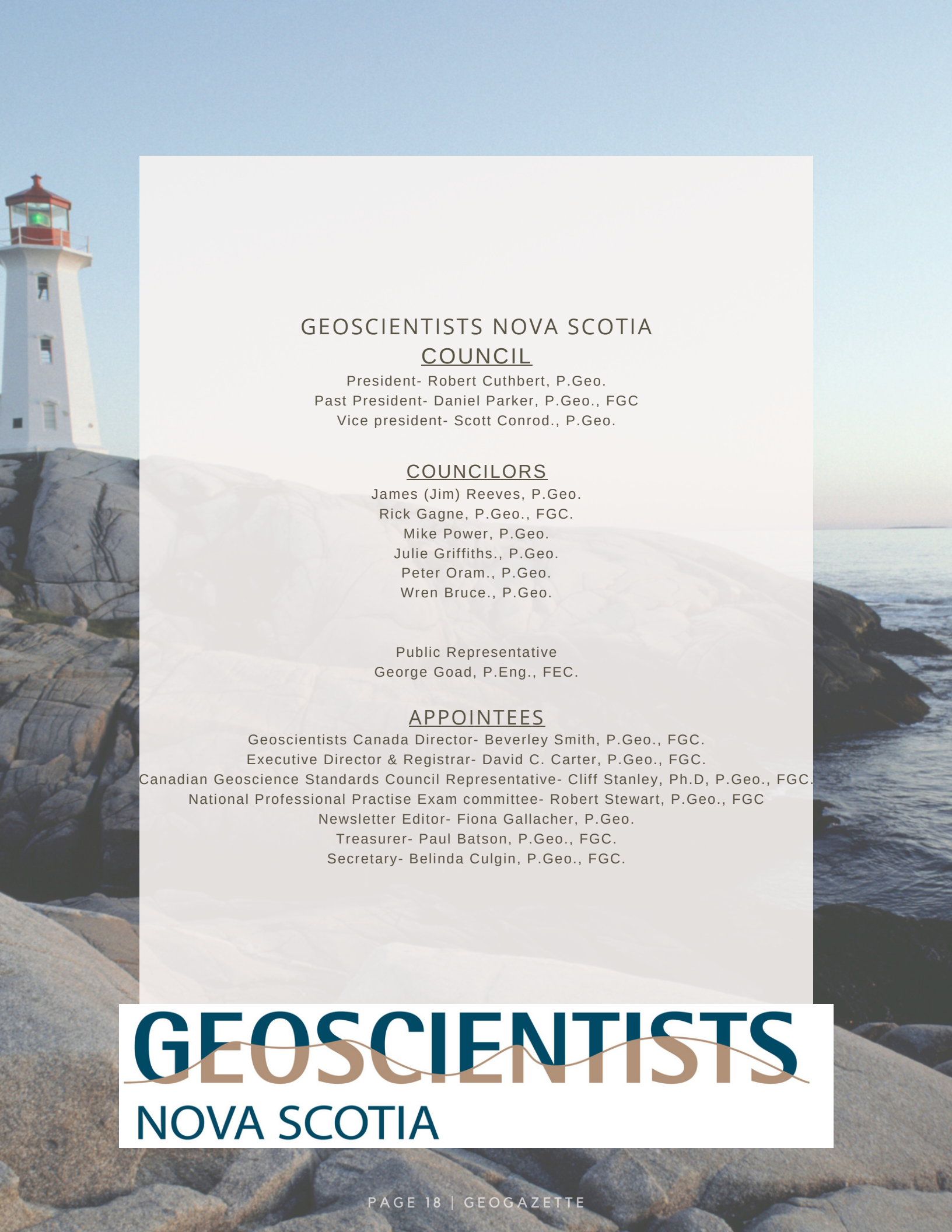
PHOTO REQUEST

Quietly sitting by the fire, after a full day of portaging on the Back River (Submitted by Noah Booth)

The GeoGazette is always looking for more photos from it's members:
We want to feature your photos in our next issue.
Rules:

1) The photos should be taken by members of the Association.
2) The photos can be geology related (outdoors or indoors)
3) A brief description to the photo and photographer's name
4) Requirement for a signed photo release

Please submit all photos to fgallacher@dillon.ca



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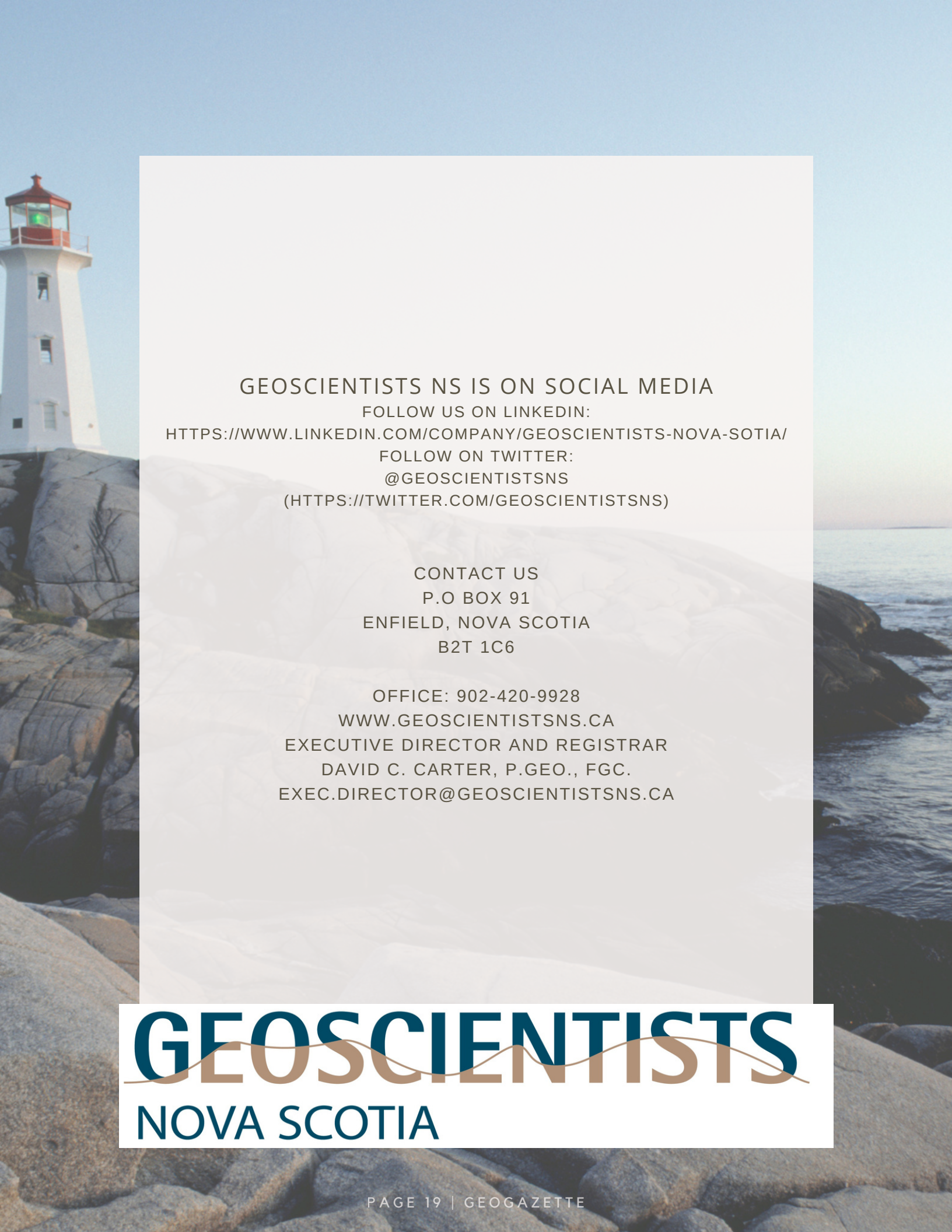

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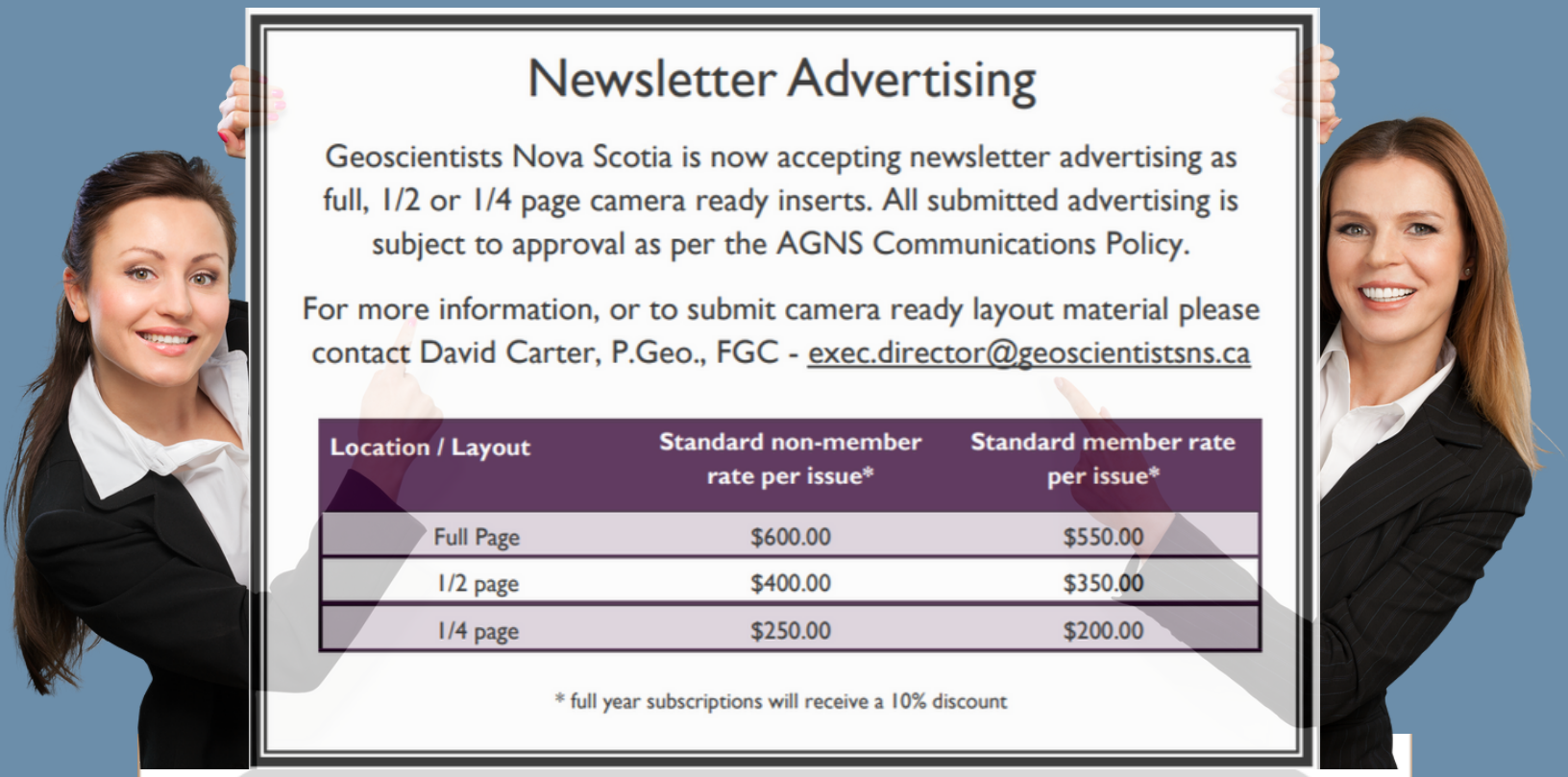

Newsletter Advertising

Geoscientists Nova Scotia is now accepting newsletter advertising as full, 1/2 or 1/4 page camera ready inserts. All submitted advertising is subject to approval as per the AGNS Communications Policy.

For more information, or to submit camera ready layout material please contact David Carter, P.Geo., FGC - exec.director@geoscientistsns.ca

Location / Layout	Standard non-member rate per issue*	Standard member rate per issue*
Full Page	$600.00	$550.00
1/2 page	$400.00	$350.00
1/4 page	$250.00	$200.00

* full year subscriptions will receive a 10% discount

The ***GeoGazette*** is a quarterly publication of Geoscientists Nova Scotia.

Members are welcome and encouraged to submit editorials, letters to the editor and articles of interest, including photographs, for publication.

Opinions and views independently expressed in this publication do not necessarily reflect those of Geoscientists Nova Scotia, the Council, Boards, Committees, and/or Staff.

Subscriptions to the ***GeoGazette*** are provided electronically to all registrants (members, licensees and members-in training, and student members) in good standing, and are included in the annual registration fees.

The ***GeoGazette*** will be distributed electronically and posted on the Association website (www.geoscientistsns.ca).

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APGNS Publication Policy

APGNS encourages the submission of articles and editorials for publication in the ***GeoGazette*** on topics related to the science and profession of geoscience.

Submittals shall be of interest to the members of APGNS, and others interested in earth science. Articles and editorials may be noted as follows at the discretion of the editor:

"The opinions, positions and conclusions presented herein are those of the author and do not necessarily reflect the opinions, positions or conclusions of APGNS."

All materials submitted for publication, including author opinions contained therein, shall include accurate and appropriate references. The Editor has the authority to solicit, edit, accept, or reject articles and editorials and other written material for publication. The APGNS Editorial Board has the authority, if it chooses to act on any particular case, to support or overrule actions of the Editor regarding the solicitation, editing, acceptance, or rejection of any particular article, editorial, or other written material for publication.