



Spring Thaw in the Geopark: Observing the Agates of the Cliffs of Fundy

The monthly "Cliffs Geopark Column" continues with this issue. The three collaborating authors are: Tim Fedak, David Piper, and Caleb Grant. The "Geoscientists of the Geopark" can be reached at: geoscience@fundygeopark.ca

As the spring thaw works its way through the rugged cliffs of the Cliffs of Fundy UNESCO Global Geopark, a 200-million-year-old story emerges from the stone. The seasonal erosion as the frost melts along the Minas Basin acts as a natural gallery opening, revealing the world-class agates of the North Mountain Basalt.

While the temptation to take a piece of history home is strong, these geological wonders are part of a protected landscape. In a UNESCO Global Geopark, the goal is to preserve these "museums without walls" so that every visitor can experience the thrill of discovery. This spring, we invite you to be a "geological observer"—finding these treasures in their natural habitat, photographing them, and leaving them for the next explorer to find.

What makes the agates of the Cliffs of Fundy so remarkable for their colours and patterns? The agates form veins along fractures in the basalt cliffs and also fill large cavities in the basalt. Agates are made of silica, the same material that we use in glass. The silica precipitates as silica gel from hot water that circulated through fractures in and underneath the basalt flows. You probably know of silica gel as a household desiccant. The beautiful patterns in the Fundy agates are formed by precipitation of impurities, mostly iron, from within the silica gel, creating the beautiful red and yellow "flames" at the same time as the silica gel was crystallizing to form hard quartz, the most common and stable form of silica. Some agates blocked fractures that were pathways for circulating hot water, leading to pressure build up and eventual hydrofracturing ("fracking") causing the agate to shatter into pieces. Exceptionally, such fragments may be cemented by younger agate or by zeolites.

The unique feature of the Bay of Fundy is that the thick lava flows (more than 100 m thick) took many decades to cool from their initial temperature of more than 1000 °C. Rain water and ground water were circulating through and under the hot basalt, in the same manner as soup will circulate within a hot pot on the stove. The presence of salt in the muds and sands of the desert floor across which the basalt flowed meant that the circulating waters became quite saline and at temperatures about 300 °C were able to dissolve silica from desert floor sands and iron from the basalts themselves.

You can witness these ancient chemical reactions frozen in time at several places along the Cliffs of Fundy although the same erosion that reveals these stones makes the cliffs unpredictable. Please stay well back from the cliff base. Rocks can fall without warning, especially during the spring freeze-thaw cycle. Stick to the flats of the beach at low tide, use a zoom lens for your photos, and always check the tide tables before setting out. As the weather becomes warmer and the days longer, enjoy the opportunity to search for agates that have been eroded from the cliffs during the winter months at some of the included geosite locales.

- **Wasson Bluff:** This is perhaps the best place to see highly decorative agates in situ. Because of the active faulting in this area, you can observe how ancient cracks in the basalt were filled with silica. Look for complex, brecciated patterns where older agate was fragmented and "re-cemented" by newer layers—a rare sight preserved right in the cliff face.
- **Five Islands:** Here, you can find the famous "Flame Agates." Look closely at the horizontal veins in the basalt to see "goethite flames"—vibrant red and yellow plumes that appear to grow upward into the stone. Seeing them in their original horizontal orientation tells us exactly how gravity influenced the minerals as they formed.
- **The Brothers:** This site offers a stunning look at vertical veins. You can observe "banded chalcedony," where the minerals formed distinct, colorful stripes as the silica gel slowly hardened over thousands of years.

For more information or to ask a question about the Geopark contact: Geoscientists of the Geopark via email at: geoscience@fundygeopark.ca

Notes from our Federal Capital We're here to protect Citizenship

There's a moment at a citizenship ceremony that gets me every single time.

The room goes quiet — just for a second — right before everyone takes the oath. You can feel it. Everyone in that room knows something important is about to happen. And then it does.

New Canadians. People who chose this country, who worked for it, who waited for it. People who truly believe in the greatness of Canada.

I stood in a room this month and thought: THIS is the thing we're here to protect. This idea that Canada is worth committing to. Worth fighting for. Worth getting right.

That feeling has followed me everywhere this April — through maple sugar shacks and brewery taprooms, through the halls of Parliament, and through some of the hardest conversations I've had since taking office. It's the feeling that pushes me to keep going when the work gets heavy and the problems feel too big. We have a lot of work to do as a country — and its absolutely worth getting it right.

Entrepreneurship & Ingenuity

April took me all across this riding — and I mean that almost literally. Cumberland-Colchester spans nearly 8,000 square kilometres. And every part of it has its own story, its own grit, its own struggles...and potential.

At **Davison's Maple Syrup**, I watched what patience and craft actually look like. Generations of knowledge, distilled into something golden and extraordinary. At **Two Islands Brewing**, I saw entrepreneurial creativity doing what it does best — turning local ingredients and local pride into something you can taste. **Dutchman's Cheese Farm** reminded me that agriculture here isn't just an industry, it's an identity. And at **Stock Homes** in Amherst, I saw people solving a very real housing problem with ingenuity and determination.

Every one of these businesses is run by people who didn't wait for someone else to figure it out. They stepped up. They built something. That's the Cumberland-Colchester I know. That's who I work for.

Notes from our Provincial Capital

Let's move forward RESPONSIBLY to actually prosper

Hello from Colchester North. Once again, I am going to talk about responsible resource development. I want to reiterate that these are my views and opinions. I am just as passionate about Responsible Resource Development as those who are opposed.

Yes, I am very disappointed in those folks that chose to disrupt the meetings that were arranged to allow regular Nova Scotians to go to a meeting and ask questions of folks that are educated professionals. It was a chance for folks that are genuinely wanting information.

It was not an opportunity for others with strong opinions either pro or con on the issues to force their personal view on those wanting information or respectful debate. As your elected representative I understand it is my responsibility to represent all residents of Colchester North. I also believe I have a responsibility to understand the issues, to research the issues, to be frank and honest with the residents and to accept the consequences of those decisions.

On the issues of Responsible Resource Development, I have done research. Over time I have found that on any issue you will find opposing views or opinions from experts, I often refer to them as dueling scientists. Given that concerned citizens were not able to ask question at the venues provided.

I suggest you research yourselves as there is lots of information out there and I encourage you to do research. There are any number of AI sites available, I recommend you try different ones. Using hydraulic fracking as an example if you ask a generic question like what are the concerns with hydraulic fracking you will get pages of potential problems.

I encourage you to then ask direct questions such as, how many wells have been drilled in Canada in the past 10 years. Then ask how many doc-

Notes from our Provincial Capital

Tourism generated \$3.7-Billion in 2025

Tourism continues to be a powerful driver of economic growth and community pride in Nova Scotia. Last year alone, the industry generated \$3.7 billion in revenue, outpacing the national average. That success is rooted in the dedication of tourism operators, entrepreneurs, and community leaders across the province who create the kinds of authentic, memorable experiences that draw visitors from around the world while also encouraging Nova Scotians to rediscover all that exists in their own backyard.

Our government is committed to building on this momentum. Through the Nova Scotia Tourism Sector Strategic Plan, we are supporting a strong, year-round tourism industry that benefits communities in every region. This year, we are investing \$4 million in programs that help businesses and communities grow through targeted research, marketing, and business development.

As tourism evolves, so too must the way we connect with visitors. Today, most travellers plan their trips online before they ever arrive. That's why programs like Tourism Nova Scotia's Tourism Digital Assistance Program are so important. They are helping local businesses strengthen their online presence, better understand their audiences, and turn digital engagement into real-world visits. We are seeing firsthand how these tools are helping operators build more resilient and successful businesses.

At the same time, we continue to invest in the sectors that make Nova Scotia

Crisis in Iran

This month I also had the honour of sitting down, on multiple occasions, with members of our Iranian Canadian community — people who are carrying a weight that most of us can barely imagine. They are watching violence and political chaos unfold in a country where they still have family, still have roots, still have love. They didn't really have demands to voice. Because so many are carrying something that is harder to hold: worry.



Alana Hirtle

I want to be honest with folks about what I can and can't do. I can listen. I can carry their concerns forward. I can make sure their voices are part of the conversations happening at the federal level. What I cannot do is fix a geopolitical crisis from Truro. But I can make sure that the people in this riding who are living with the weight of it know they are not invisible. They are seen. They are part of this community, and this community stands with them.

Renewal & Opportunities

April is also a month of renewal in a lot of traditions. Passover. Easter. The return of the Springtime light. I find myself drawing on that energy right now, because the work I'm doing in Ottawa is exactly the kind that requires patience and faith that momentum matters — even when the finish line isn't yet in sight.

Here's what I mean.

This April, I stood on the floor of the House of Commons for the second reading of my Private Member's Motion — and I want to explain why this matters, in plain terms, because I think it's one of the most genuinely exciting ideas I've had the chance to champion.

Across this country, the federal government owns buildings and properties that sit empty or underused. Some of them are former decommissioned military properties (like the Ralston Armoury in Amherst). Some are office buildings in communities that could

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umented factual cases of contamination of a sub-surface aquifer have been attributed to fracking those types of questions. Try and find balanced impartial (I admit that is difficult) factual information and form your opinion.

So why am I so passionate about responsible resource development? I have served 12 years in Municipal Government and now over 5 years in Provincial Government. In that time, I have a proven strong record on environmental, in recycling and carbon reduction issues.

Over those 17 plus years I have also been involved in many of the challenges we are faced with today. Poverty, Health Care, Doctor Recruitment, Education, any number of financial challenges we face. I also raised a family and lived pay check to pay check. It was not and is not easy, in fact I believe it is more difficult today.

During my life I have strived to get ahead, to make more money to make a better life for my family. I want my children and the young families of our rural communities to not just survive but to PROSPER. I do not want our province to "get by" with transfer payments from other prosperous Provinces.

Our Province and our Country were built on our natural resources. On our Forestry, Fishing, Agriculture, and Mining. I fully admit that some of the practices of years gone by have resulted in damage. However this is a new day, we are a developed country and lessons have been learned.

Let's move forward RESPONSIBLY and ensure that our children and their families have the capacity to not only face the challenges of the future, but to actually prosper.

Tom Taggart, MLA Colchester North, (O) - 902-641-2335, tom.taggartmla@gmail.com



Tom Taggart

such a vibrant destination. Support for arts and culture has grown significantly, with funding now exceeding \$66 million - an increase of nearly 30 per cent since 2021. These investments help sustain the festivals, performances, and cultural experiences that enrich our communities and attract visitors year after year.

We are also ensuring visitors have access to the information they need to make the most of their time here. From NovaScotia.com and our provincial contact centre to more than 40 community Visitor Information Centres, we are strengthening the tools and services that connect travellers with local experiences across the province.

Growing tourism remains a priority, and we will continue working alongside communities and industry partners to build on our success.

During National Tourism Week, I want to extend my sincere thanks to everyone who contributes to this vital sector. Your creativity, commitment, and hard work are what make Nova Scotia a place people are proud to visit and eager to return to.

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