



APGO Education Foundation Releases Wolfe Island GeoPaddle on GeoscienceINFO.com

September 25, 2024, Toronto, Ontario: The APGO Education Foundation ("APGOEF") and the Department of Geological Sciences and Geological Engineering at Queen's University are pleased to announce the release of our first ever GeoPaddle – the Wolfe Island GeoPaddle! This GeoPaddle is located on the north shore of Wolfe Island, across from Kingston (see Figure 1). This virtual paddling tour features 5 stops that highlight the local geology. To see this GeoPaddle, visit our GeoPaddles page at https://geoscienceinfo.com/geopaddles-welcome/.



Figure 1. Map of Wolfe Island, showing the location of the Wolfe Island GeoPaddle (yellow star).

Wolfe Island is the largest island of the renowned Thousand Islands, an archipelago that straddles the Canada-US border near Kingston, Ontario. Wolfe Island is predominantly composed of limestone that was deposited during the Ordovician Period, over 440 million years ago. During that time, this area was a warm, relatively shallow sea located closer to the equator. It was a perfect spot for many marine animals to thrive. As you paddle to Stop #3 you will encounter many of these ancient animals now preserved as fossils in Fossil Beach (see Figure 2), as well as some beautifully preserved ripple marks. You will also encounter some seemingly misplaced granitoid boulders atop the limestone at Stop #1 (see Figure 3). These are called glacial erratics and were moved here by the last glacier to move over the region. As you paddle your way through the shores of Wolfe Island, you will learn more about this process along with more modern processes such as weathering that continue to influence local geology and geomorphology.



Suite 1100 One Yonge Street, Suite 704 Toronto, ON M5E 1E5 info@APGOEF.ca www.apgoef.ca



Figure 2. Gastropod fossil preserved in limestone at Fossil Beach, at Stop #3 on the Wolfe Island GeoPaddle.



Figure 3. Granitoid boulders transported to Wolfe Island by the last glacier, at Stop #1 on the Wolfe Island GeoPaddle.

The Wolfe Island GeoPaddle was developed by the GeoscienceINFO team led by Manager Dr. Deana Schwarz, P.Geo., and the Department of Geological Sciences and Geological Engineering at Queen's University, led by Dr. Christopher Spencer, and the hard work of students Vivian Wacheski, Chloe Brunton, and Olivia Winslow. It is our first GeoPaddle to be released in what will be a growing series of geoscience-based paddling tours across Ontario that aims to enhance public knowledge of geoscience using a handson and virtually accessible approach. We plan to release more GeoPaddles in the near future.

GeoPaddles are 1-3-hour paddling tours in Ontario waters that highlight local geology and describe their geological and environmental significance. GeoPaddles can be used as guides while paddling, or as a virtual alternative at home or in the classroom. Visiting sites in person is a great way to learn but virtual tours are also an exciting way to expand one's knowledge when in-person access is not possible. Through the use of ESRI's innovative ArcGIS-StoryMapTM application and the integrated features, GeoPaddles provide the user with an immersive experience. GeoPaddles typically include:

- 360-degree photos and/or drone videos to provide a detailed overview of each site.
- LiDAR-based virtual 3D models that show locations of key features such as fossils, important structures and other geological features at the buildings or rock outcrops.
- Slide bars to show multiple images or overlays of important features or geologic information.
- Descriptions of geological features.
- Audio descriptions of written content.



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About the APGO Education Foundation

The APGO Education Foundation ("APGOEF) is a registered charitable organization under the Canada Notfor-profit Corporations Act, registration number 84604 5052 RR0001.

The purpose of the charity is to advance the education of the public in the area of geoscience by:

- Holding lectures, presentations, and conferences on geoscience both in person and virtually to introduce geoscience to high school and university students as well as enhance the knowledge of the general public.
- Providing scholarships to post-secondary students for the study of geoscience in the final year of a Bachelor of Science (B.Sc.) degree program.
- Providing bursaries to immigrants to Canada who are internationally trained geoscientists and have demonstrated financial need for completion of licensure procedures for registration as professional geoscientists (P.Geo.s) in Ontario.

APGOEF provides funding to support innovative geoscience education projects working with university geoscience departments, community groups and not-for-profit organizations across Ontario. Please see our website at https://apgoef.ca.

GeoscienceINFO.com an innovative one-stop spot for the public for information about the earth beneath their feet. This new website provides interesting information on all facets of geoscience. A particularly exciting feature of GeoscienceINFO.com is the highlighting of virtual fieldtrips in different areas in Ontario. This enables viewers to experience and learn about the geology of an area while traversing it digitally in ESRI ArcGIS OnlineTM and StoryMapsTM. Information on the latest discoveries and news in the world of geoscience is featured on the website, on our blog Beneath Your Feet: A Geoscience Blog, as well as on our social media.

If you like our work, please consider making a tax-deductible donation to support our programs. **To Donate -** https://www.canadahelps.org/en/charities/apgo-education-foundation

For further information:

Bill Pearson, Ph.D., P.Geo., Chair Email: chair@apgoedfoundation.ca

Deana Schwarz, Ph.D., P.Geo., Manager Email: manager@geoscienceinfo.com



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