

APGO Education Foundation Releases Parry Sound GeoPaddle on GeoscienceINFO.com

March 11, 2025, Toronto, Ontario: The APGO Education Foundation ("APGOEF") and the Geological Sciences and Geological Engineering department at Queen's University are pleased to announce the release of the Parry Sound GeoPaddle, located on the north side of Parry Sound and beginning at Nobel Beach (see Figure 1). This virtual paddling tour features 6 stops that highlight the local geology. To see this as well as all our GeoPaddles, visit our GeoPaddles page.



Figure 1. Map showing the location of the Parry Sound GeoPaddle (yellow star).

Located on the Canadian Shield, the Parry Sound area is part of a large belt of metamorphic rocks that formed over one billion years ago when a huge landmass collided into Laurentia, forming the Grenville Mountains. The intense heat and pressure on the rocks at the base of this massive mountain chain caused them to undergo metamorphism, resulting in the vast units of gneiss we see in the Parry Sound area today. As you paddle (in your kayak or virtually from home), you will see many features in the rocks that formed as a result of metamorphic processes, such as gneissic banding at many of the stops and migmatites at stop #4 (see Figure 2). On this GeoPaddle you will learn how processes such as weathering have modified these rocks since their formation and what we can expect as weathering continues (see Figure 3).



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Figure 2. Migmatites at stop #4 on the Parry Sound GeoPaddle.



Figure 3. Differential weathering of felsic and mafic bands at the Parry Sound GeoPaddle.

The Parry Sound GeoPaddle was developed by the GeoscienceINFO team led by Manager Dr. Deana Schwarz, P.Geo., and the Geological Sciences and Geological Engineering department at Queen's University, led by Dr. Daniel Layton-Matthews, and the hard work of students Olivia Winslow, Chloe Brunton, and Vivian Wacheski. It is part of a growing series of geoscience-based paddling tours released across Ontario that aims to enhance public knowledge of geoscience using a hands-on and virtually accessible approach. We plan to release more GeoPaddles in 2025 and subsequent years, throughout Ontario.

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 is a registered charitable organization under the Canada Not-for-profit Corporations Act, registration number 84604 5052 RR0001. A primary purpose of the charity is to advance the education of the public in the area of geoscience — see https://apgoef.ca. GeoscienceINFO.com, developed by the Foundation, is an innovative one-stop spot for the public to gather information about the earth beneath their feet. This website provides interesting information on all facets of geoscience. A particularly exciting feature of GeoscienceINFO.com is the highlighting of virtual field trips in different areas in Ontario. This enables viewers to experience and learn about the geology of an area in person or while traversing it digitally in ESRI ArcGIS Online and StoryMaps.

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

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