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**Geological vignettes from York Redoubt,  
National Historic Site**

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York Redoubt, one of the fortifications that made up Halifax's harbour defences, has stood guard atop a bedrock ridge since 1793. A National Historic Site, administered by Parks Canada, it offers panoramic views of the harbour while providing a glimpse into the region's military history.

The site provides a wonderful introduction to the geology of the region. It sits astride a contact between the two major rock units found in southwest Nova Scotia, the metamorphosed sedimentary rocks of the Cambrian Meguma Group and Devonian granitoid rocks of the South Mountain Batholith. As the two rock types look very different, this contact can be mapped quite easily by neophytes as they wander through the historic terrain. Last November, one of the authors took a group of Young Field Naturalists (and their parents) to do exactly that, with all not only surviving, but enjoying the experience.

In the process of mapping, students had to find their location on an air photo while mapping the different rock types. They also observed variability within the rock units, all the while opening their eyes to the usually "invisible" rocks beneath their feet. Some of the interesting vignettes that can be recounted include: large plagioclase and quartz crystals in the granite; enormous glacial boulders; cubic "holes" left behind from the weathering of pyrite in slate; quartz banding and veins in the metasediments near the contact; and even "stalactites" made out of Portland cement, leached out by water percolating through the concrete structures built during WWII for the operation of the anti-submarine net. And of course, there is the overarching story of the region's glacial history, carving

out the harbour and creating a landscape which made the city so impervious to attack from the sea.

Following the walkabout, students were able to apply their newly-gained understanding by continuing their mapping during the car trip down Purcell's Cove Road as they passed from one rock type to another and back again all the way to the Armdale Rotary. After mapping the contact, participants compared their map to a published one (the AGS Geological Highway Map of Nova Scotia), giving them an appreciation for the astounding amount of work done by geologists who have preceded us. In this International Year of Planet Earth we have an opportunity to re-discover the Earth beneath our feet. This field trip serves as an example of similar outings wherever we might live. All that is necessary is for us to open our eyes to the diverse geological vignettes all around us waiting to be told.