

The Value of Green Cove: A Response to the Detailed Impact Analysis

Submitted by Martha Hickman Hild, PhD, 1 June 2015

The Detailed Impact Analysis (DIA) of Green Cove uses a flawed approach to assess the geological value of the headland. This response outlines why the scientific, educational, and heritage value of the site is unique and significant, warranting its preservation.

Across Canada, the drama and scope of our geological heritage is stitched into the fabric of our history and identity. From the tall Rocky Mountains in the west to the ancient heart of the Canadian Shield and the gentler slopes of the Appalachian Mountains in the east, our landscape and its bedrock foundations shape our lives and help us to know who we are.

Canadian geologists have been world leaders in decoding the history of the Appalachian Mountains, one of the Earth's great mountain belts. Their collection of accomplishments forms a significant and transformative chapter in the history of science worldwide; and the rocks of Cape Breton Island have contributed significantly to the telling of that story.

What, specifically, gives a rock outcrop value as part of our natural and historical heritage and literacy? Throughout the history of science, rock outcrops have been the basis for geological understanding; and for scientific research and education today, they remain so. Their features are the language in which Earth history is written.

In Nova Scotia an outcrop's very existence is a minor miracle. This land of forests, farms, and towns reveals little enough of the complex rocks beneath our feet. The exposures we do find are like the fragile scrolls of antiquity: Outcrops vary in the quality of their preservation and legibility.

The value of an outcrop—to science but also to Nova Scotians and all Canadians, whose heritage the outcrop records—lies in attributes that include public accessibility, extent of exposure, richness of features, and, most important, the unambiguous clarity of those features.

Normally geologists are fortunate to find one or two clues in an outcrop. At Green Cove, several interrelated rock types are all revealed together, spelling out a richly detailed story of their formation. The fine preservation and display of features at the site is due to a rare coincidence of natural forces that could never be replicated by human effort.

- Fractures commonly break, stain, and reduce many outcrops in the region to cryptic incoherence, but the rock at Green Cove is relatively unbroken.
- A thick weathered skin can obscure rock and mineral relations, but at Green Cove, weathered material has been removed by glacial action. That same action has rounded and smoothed the surface to an ideal texture for revealing details.
- Lichens blot and cloak virtually all inland outcrops, rendering their surface unreadable, but at Green Cove storm waves periodically wash the headland, keeping its smoothed surface clear for any visitor to see.

The Detailed Impact Analysis considered the aerial extent of the Black Brook Granite exposed at Green Cove, and reported the quantity of outcrops without regard to their quality. Just as fractures, stains, weathering, and lichen obscure the overwhelming majority of outcrops in Cape Breton Island, the DIA's misguided approach to appraising the outcrop has obscured the true value of Green Cove to geological science, education, and heritage in Canada.

In truth, a glacially smoothed, wave-washed, and publicly accessible outcrop like the one at Green Cove is as rare and irreplaceable as a revered historical document. And like such a document, its value lies in the ability it gives us, as a people, to understand the foundations that underpin our province and nation.

What purpose would be served, and what message sent, by sullyng this specific, highest-quality asset to install a monument? Those who fought and died for Canada surely did not do so in a spirit of carefully manipulated cost and benefit. Surely they gave all in the hope that all our heritage, all that enlightens us, all that is unique about us, would remain whole.

Please preserve Green Cove as it is today.

Martha Hickman Hild is a science writer and editor currently based in Flatrock, Newfoundland. She has a PhD in Earth Science and is the author of two geological field guides, *Geology of Newfoundland* and (with Sandra Barr) *Geology of Nova Scotia*.

Contact:

email: mhhild@bellaliant.net

phone: 709-437-1156