

June 2016

Arctic carbonates, sandstones and volcanic rocks, NW Ellesmere Island

In 2013, we investigated the role played by tectonic forces in the origin, distribution and ancient environment of deposition in Nunavut. We focused on an area of the Sverdrup Basin centered on NW Ellesmere Island, where this phenomenon is well displayed in outcrops.

We conducted the research in July 2013. This project was the basis of two M.Sc. theses by students at the University of Calgary. We examined in details the sedimentary succession recorded at two locations on northwest Ellesmere Island. Small fly camps were set up at each locality. Air transportation was provided by PCSP. The graduate students measured five different sections. They recorded the thickness of individual beds, made observations about the rock composition, and collected rock samples for additional analyses. In the laboratory, the students examined the collected samples under the microscope. Chemical data were later measured at the University of Calgary. Once completed, the data and the knowledge acquired through this study will be entirely available to Nunavut communities that wish to have access to it. The interpretations will be published in peer-reviewed journals.



Benoit Beauchamp Ph. D, Professor
Department of Geoscience