

Quaternary geology in New Brunswick: an historical perspective

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Quaternary geology studies in New Brunswick began in earnest in the late 1800's with the pioneering surveys of Matthew and of Chalmers. While working for the Geological Survey of Canada, Chalmers published several reports of investigation accompanied by surficial geology maps covering most of the Province. Based on his field observations, he developed a concept of local ice caps to explain the glacial features found in New Brunswick.

A fifty years hiatus followed these early

studies during which the continental glaciation theory became the dominant theme amongst Quaternary geologists in North America. Chalmers' concept was abandoned and forgotten as influential geologists such as J.W. Goldthwait and R.F. Flint tended to support and promote the concept of a massive regional radial flow of Laurentide Ice across the Maritime Provinces.

In the 1950's, proposed development of the hydroelectric potential of the Saint John River sparked new interest in the

Quaternary geology of New Brunswick. When H.A. Lee undertook a major mapping project along the Saint John River valley, the concept of Laurentide glaciation of New Brunswick was still an established "fact"; this may explain why Lee did not recognize field evidence for northward moving ice in the Edmundston area of northwest New Brunswick.

Ten years later, Prest and Grant re-

examined field data available for the Maritime Provinces-Gulf of St. Lawrence region and concluded that Laurentide ice had not been as active in this area as was previously believed. Extensive mapping of the province in the last fifteen years by Gadd, Gauthier, Rampton and by geologists of the New Brunswick Department of Natural Resources has confirmed the validity of Chalmer's original concept.