

Quaternary geology of New Brunswick: seven years later

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Geological Survey of Canada, Memoir 416, "Quaternary Geology of New Brunswick," by Rampton, Gauthier, Thibault and Seaman, was published in 1984. This volume endeavoured to interpret the results of reconnaissance Quaternary geology mapping carried out intermittently over more than 100 years. The interpretation presented was of a complicated sequence of glacial events during the Late Wis-

consinan, due to the interaction of several small, local glaciers. Deglaciation was interpreted as due to the marginal retreat of active ice.

Data collected during the course of detailed mapping projects conducted during the past seven years has confirmed that the sequence of glacial events was indeed complex, in fact, more complex than could ever have been envisioned.

For example, in southwestern New Brunswick 16 different regional ice-flow events have been identified. These appear to relate to the migration of one or more dispersal centres. Chronological relationships indicate that the ice centre shifted position from somewhere to the north, through to the west, and finally to the southwest, probably over coastal Maine. In addition, other ice-flow events are known that may relate to late, local glaciers. In other parts of the province, the glacial record is similarly complex. However, the available data is still insufficient to permit accurate correlation.

Deglaciation, in contrast, was relatively simple. The ice margin retreated to the coastal areas of New Brunswick, presumably by calving into rising marine waters, and then the regional ice mass largely stagnated. Extensive and intricate subglacial drainage systems were formed as the ice mass wasted. While this regional ice mass was disintegrating into a series of remnants occupying topographic depressions, local glaciers may have remained active over highland areas of the province.