

Some Dates Relating to the Dating of the Last Major Ice Sheet  
in Nova Scotia\*

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Much speculation has occurred about the date of the beginning of the last major ice sheet in Nova Scotia but little direct evidence has been forthcoming. In the work done by the writer in mapping of Pleistocene deposits in Nova Scotia as a Nova Scotia Research Foundation project, it has been noted that little in the way of organic materials has been found from which  $C^{14}$  dates may be obtained.

Three samples were obtained on which dates were determined, two relating to the beginning of the ice advance as given by the deposition of till, and one which relates to the end of the ice advance.

In Addington Forks, Antigonish County, a sample, No. 9773/64 was obtained from a 2-foot thick inter-till sand and silt layer. The overlying till is about 15-feet thick and was laid down as part of a small drumlin. The  $C^{14}$  dating, obtained through the assistance of a Geological Survey of Canada Research Grant, gave a date of 33700  $\pm$  2300 years B.P. A second sample, 8385/51, was collected from beneath approximately 70 feet of till overlying the gypsum in the Miller Creek quarry area of the Fundy Gypsum Company in Hants County. The date obtained was 33200  $\pm$  2000 years B.P. These two dates, obtained from samples secured from sites over 100 miles apart are significant. It would appear that the last major ice sheet covered wood of these ages and it is reasonable to expect that these dates do indeed indicate the beginning of the advance over these areas of the Late Wisconsin ice sheet.

A third sample was obtained at Benacadie Point in Cape Breton. This sample, 4450/36, was obtained from just below a very thin till which is thought to have been laid down by the local glaciation which seems to have closed the Pleistocene in this area. The data obtained was 11670  $\pm$  170 years B.P. This agrees very closely with published dates from other localities in North America. It would then be reasonable to give the time extent of the Late Wisconsin glacial episode as from 33700  $\pm$  2300 years B.P. to 11670  $\pm$  170 years B.P., followed by local glaciation, in Cape Breton Island.

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