

Events of the Late Wisconsinan-Holocene Transition in Nova Scotia

R.R. Stea

Nova Scotia Department of Mines and Energy, P.O. Box 1087, Halifax, Nova Scotia B3J 2X1
and

R.J. Mott

Geological Survey of Canada, 601 Booth Street, Ottawa, Ontario K1A 0E8

Deglaciation is recorded in Nova Scotia by deltaic glaciofluvial and glaciomarine sediments. Shell dates on bottom-set beds of a delta at Spencers Island range from 14,300 - 12,600 yr B.P. The Spencers Island delta records a prominent ice marginal stand. A second ice margin was present on the lowlands north of the Minas Basin. It is marked by ice contact stratified drift, a series of lakes, pinch-out of a distinctive till sheet, and a terminal moraine in a valley a few km north of the Parrsboro outwash delta. The margin has not yet been directly dated, but the age is estimated to be between 12,500 yr B.P. and 10,000 yr B.P.

The age of complete deglaciation of Nova Scotia is still unknown. Peat beds were deposited during an interval, dated at

11,800 yr B.P. to 10,500 yr B.P. Pollen in these peat beds record the migration of spruce into the region indicating climatic warming, and a subsequent deterioration of climate recorded by the return of tundra-like flora. The peat beds are overlain by a variety of deposits including fluvial gravel and sand, lacustrine sand, silt and clay, and till-like diamictos. At Collins Pond, on the shore of Chedabucto Bay, a diamicton overlying the peat bed is characterized by strong fabrics parallel to the trend of ice flow landforms in the region. The evidence suggests that at least some of these deposits are glacial, indicating that glaciers were active in Nova Scotia until 10,000 yr B.P.