Geology of the northeastern end of the Indian Mountain uplift, New Brunswick

C. St. Peter
New Brunswick Department of Natural Resources and Energy, Energy Branch, P.O. Box 6000, Fredericton, New Brunswick E3B 5H1, Canada

A regional geological compilation, supplemented by local detailed field work, is in progress in a 900 km^2 area northeast of Havelock in the Indian Mountain uplift of southeastern New Brunswick. The purpose of the study is to resolve historically perplexing stratigraphic and structural problems in the lower Carboniferous Horton Group. Samples have been collected for miospores to provide much needed chronology in these highly faulted and largely undated strata.

The Indian Mountain uplift is characterized by small inliers of pre-Carboniferous "basement" granitoids unconformably overlain by a thick section of lower Carboniferous (Tournaisian) Horton Group continental clastic strata. The Horton rocks are unconformably overlain by Visean coarse red beds and marine limestone of the Windsor Group and Visean to Namurian fine to coarse red beds of the Hopewell Group. The Namurian and older rocks defining the uplift are in fault and unconformable contact to the north and south with late Westphalian B to Stephanian red and grey fluviatile beds of the Pictou Group.

New findings from the preliminary field work include evidence that: (1) the uplift comprises several major northeast-trending faults that have a long history of reverse and strike-slip displacements, (2) north-northwest- and northwest-trending cross faults are primarily dip-slip structures and in part post-date the northeast-trending faults, (3) the rocks between Berry Mills and Salisbury on the north side of the Berry Mills Fault are Horton Group and not Boss Point Formation or Pictou Group as previously mapped, and (4) the base of the Pictou Group is diachronous from late Westphalian B on the south side of the Indian Mountain Uplift to late Westphalian C on the north side.

Atlantic Geology, March 1995, Volume 31, Number 1