

Quaternary  
oscillations of  
level.

The marine deposits along the coast were also studied and facts obtained which serve to show their horizontal and vertical distribution as well as the oscillations of level which the region underwent, approximately, during the Quaternary epoch. The amount of these oscillations is estimated on the evidence of marine fossils, old shore lines, and drift-filled estuaries.

Barometric  
measurements.

A complete hypsometrical section of the province was made along the Tobique and Nepisiguit Rivers, in which the elevations of a number of the principal mountains and lakes of the interior above sea-level were measured barometrically, and the height of the general surface of the country ascertained with, it is hoped, a tolerable approach to accuracy. Many facts relating to its agricultural character, fauna, flora, etc., were also observed. From the upper waters of the Nepisiguit a descent of the Upsalquitch River was made by way of Portage Brook and Upsalquitch Lake, and the general surface features and agricultural capabilities of that section were noted. A large tract of excellent farming land exists on the upper waters of the Restigouche, as referred to by Mr. R. W. Ells, Report D., (Report of Progress, 1879-80) which will be available for settlement as soon as some means of communication are provided. This tract is sometimes called the "Fertile Belt," but above the mouth of the Patapedia, owing to its remoteness, want of roads, etc., it is yet entirely unsettled.

Agricultural  
character of  
northern New  
Brunswick.

Towards the close of the season (1884) the Madawaska valley was visited and the character of the country along the upper St. John, in reference to its agricultural value, and otherwise, specially observed, and data regarding its surface geology collected. This section of the province, which includes Madawaska county and a part of Restigouche, it may be remarked, comprises some fine intervalles and uplands.

Rock-bound  
lake basins.

The discovery of true rock basins holding small lakes in the Laurentian and Huronian rocks lying to the northeast of the city of St. John, was not one of the least interesting results of the season's operations. Details regarding these, as well as many other matters not referred to here, will be given in the following pages.

## Fossils.

Collections of fossils were obtained from the marine clay of the Baie des Chaleurs basin, which are enumerated under the head of "Leda Clay and Saxicava Sand." Among them is a claw of the lobster (*Homarus Americanus*) discovered for the first time in the Leda clay of Restigouche. Specimens of brick-clay for the museum were obtained from brick-yards in operation at St. John, Moncton and Fredericton, and considerable collections of the flora of the province were also gathered, partly by Mr. G. U. Hay, who accompanied me as a volunteer on a trip up the Tobique River, and partly by the writer.

## Flora.

In preparing this report it is considered necessary to revise, to some