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Late Pleistocene Oscillations of Sea-level in the Ollawa Vulley.

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INTRODUCTION,

It has long been known that during late Pleistocene time an arm of the Atlantic extended westward far up the St. Lawrence and Ottawa valleys. Extensive deposits of marine clays, known as the Champlain or Leda clays, and old sea beaches, at considerable heights above sea-level, have long been known to occur in the St. Lawrence and Ottawa valleys and have furnished evidence that the land had been depressed relatively to sea-level and had subsequently emerged. It is known that stratified sands and clays holding fossil marine shells occur in the Ottawa valley at various altitudes up to at least 480 feet above the sea and that old sea beaches occur at higher altitudes; but there has been doubt regarding the upper limit of marine submergence because of contradictory opinions expressed by different investigators. It is known that the upper limit of the marine deposits rises gradually towards the north, but altitudes of the raised beaches in this region have been determined at very few localities so that comparatively little is known regarding the extent and character of the differential uplift which affected this portion of Canada during late Pleistocene time. (Pleistocene time is herein considered to have ended and Recent time to have