

A condition of things similar to this was found in the peat bog which lies at the head of the Saint Simon inlet, southwest of Shippigan. Here a low sea-cliff exposes the peat in cross section to a depth of not more than four feet below high tide mark, where the underlying structure, deeply decayed sandstone, is seen. Spongy brown sphagnum, in layers, alternates with tougher, blacker layers of woody peat, in which erect stumps and prostrate logs are rather abundant. The peat is exactly the sort of deposit now in process of formation on the surface of the quaking bog, where stunted spruces in scattered groups relieve the monotony of the low-bushed carpet that conceals the soft sphagnum. There seems to be a greater compactness of the basal layers of the peat, as if considerable settling of the mass had occurred. The rotten character of the moss, likewise, points to a considerable loss of volume. The very distinct stratification evidently marks recurrent cycles of wet and dry climate, in which forests encroached upon the barrens during dry periods, only to be overwhelmed by sphagnum when more humid conditions returned. The fact that the peat reaches down about to mean-tide level, but not below it, seems significant and will presently be discussed.

Of the bogs cited by Chalmers as evidence of coastal subsidence, perhaps the most notable is the one at Point Escuminac, near the mouth of the Miramichi. Ellis stated, in 1880, that this bog has a maximum depth of more than thirty feet.¹ Chalmers, after mentioning the convexity of the bog, says: "From the examination made about its margin, it seems to occupy a basin . . . the central part of which is below high tide level. This gives it a thickness of twenty feet or upwards. Mr. Phillips, the lighthouse keeper at Point Escuminac, informed me that he found it twenty-four feet deep in one place."² Again, Chalmers remarks that "the bottom of these deposits seems to be at least ten or fifteen feet below high tide level in some places."³

¹R. W. Ellis: Geological Survey of Canada, Report for 1879-80, Part D, p. 43.

²R. M. Chalmers: Geological Survey of Canada, Annual Report, 1887, Part N, p. 24.

³Op. cit., p. 25.