MARSH AND LAKE REGION AT HEAD OF CHIGNECTO PAY.

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deep, ones. milar narsh mud and underlying soil are perfectly distinct, and there is every evidence that the mud has been laid down in recent geological times; certainly since the Glacial period. Off Fowler's Hill, on the Aulac Ridge, the descent is very rapid, and one-third of a mile from the shore borings have shown the mud to be one hundred and fifty feet thick. At the same distance from the Sackville shore, where the hills slope more gradually, there is not more than sixty feet of mud.

Formation of the Marsh.—As to how this marsh was formed one not thoroughly conversant with the geology of the region can do little else than speculate. There have evidently been many changes in the level of the southern shore of New Brunswick in know geological times. Dr. G. F. Matthew considers that the Isthmus was far above its present level in the Glacial period. At that time Chignecto Bay would be a valley and the Bay of Fundy dry land. Glacial action would have eroded the surface and moved the loose incoherent material to lower levels. The depression of the land that followed the glacial period would have allowed the accumulation of marine clays such as are now found on the Aulac Ridge and adjoining elevations. A subsequent re-elevation would permit the accumulation of forest mould and soil on these ridges and the contiguous valleys.

In 1892, when excavations for the marine dock were being made near the mouth of the Missiguash River, numerous trunks of trees were found about at low tide level. Sir Wm. Dawson, some years ago, found a stump there showing over one hundred rings of growth. (Acadian Geol. p. 28-29). Some of these trees were white pine, others beech; neither variety attain such a size on damp land. Evidently the land where these trees were growing was much above its present level. The trees were found rooted in a rich loamy soil resting on a bed of red clay. To be above the reach of high tides the region would have to be from sixty to eighty feet above the present level.

On the Baie Verte side of the Isthmus abundant evidence is found of recent depression. Mr. E. P. Goodwin, C. E., of Baie Verte, while digging mud for fertilizing purposes, found oak leaves and spruce cones in the solid mud twelve feet below the surface, and there was every evidence that they had fallen on what was then the ground surface.

The subsidence was probably gradual, and on the Bay of Fundy has practically ceased, as the dykes have not been made perceptibly higher in the last 100 years.

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