

hardly be explained away by the supposition that during the lake stages the region where they occur was covered by the glacier so as to prevent deposition and that the ice retreated in such a way as, at once, to admit the marine fauna to the area, for when the ice front was as far south in the Champlain valley as the Saranac, it still had a long retreat to make before a passage would have been open through the Missisquoi region for the entrance of the sea with the Labradoran fauna. Before this could happen some nonmarine sediment most likely would have been deposited particularly near the mouths of streams, off which both of the localities here cited then lay. It seems more likely that this belt between 300 feet and 350 feet was so far from the lake shores as not to receive contributions of sand and gravel there being no tide to augment the offshore scouring, and that the clays were carried by the circulation of the waters to other parts of the lake floor.

*Cut cliff in till near Port Kent.* At only one point on the New York shore of Lake Champlain have I recognized what appears to be an old sea cliff entirely cut by waves. This cliff has been cut in a thick mass of till on the northwest flank of Trembleau mountain midway between Port Kent and Keeseville. The cliff may be seen at the old tollgate, now abandoned, on the direct road between the places named. The base of this cliff is practically at the level of one of the elevated stages of the delta of the Ausable river. According to the local contour of the United States Geological Survey atlas sheet the base of the cliff is about 330 feet above the present sea level.

The cliff is somewhat less than 100 feet high and extends for fully a third of a mile. It is a conspicuous object in the landscape from any point of view on the north and east because of the contrast of its somewhat ravined face with the smoothed or horizontally lined slopes which form its topographic setting.

I hold this to be a wave-cut rather than a stream-cut bank or cliff for the reason that the slopes of this mass of till, high above the cliff, exhibit numerous water levels showing that the ice sheet had retreated from this vicinity long before the cliff cutting began. It is to be presumed that this cliff was the work of waves during the marine invasion. Certainly those which acted on the higher parts of this till mass, either had no