shut the lowland off on the north about the margin of the Fort Edward plain is in great part dependent on the preglacial history of the district. Throughout this area the graptolitic rocks forming the argillaceous facies of the Lower Siluric known as the Hudson river group and comprising the Lorraine and other bodies of fossiliferous shale form the walls and floor of the Hudson river valley and its gorge. All of the glacial erosion on this terrane could not but produce clay at every step in the trituration of the material. The shales even where more or less mountain built and cleaved give way in small bits rather than those large fragments which the ice sheet was enabled to drag out from jointed sections of the harder rocks in the districts on the east and west. To this original clay of the valley there was added the rock-flour brought in from the higher grounds of the valley sides whenever and wherever the drainage was free to concentrate in the main channel. Moreover during the draining of Lake Vermont (glacial Lake Champlain) much clay was moved southward and left in the upper Hudson valley.

Organisms of the clays in the Hudson river valley. A long and fairly diligent search has been made for fossils in the Albany clays and the earlier deposits which occur farther south in the Hudson river valley but without the finding of fossils which indicate the presence of the sea during the stages of clay deposition.

Ries has discovered the spicules of a sponge (Hyalonema) and fresh-water diatoms *Navicula gruendeleri* As., *Navicula permagna* Edw., *Melosira granulata* (Ehr.) Ralfs., *Nitzschia granulata* (Gruend). He also reports finding impressions in the blue clay at Croton Landing which the late Professor Hall regarded as worm tracks.

I have collected small sinuous trails from the clays at South Bethlehem agreeing closely with those mentioned by Emerson[1] from the clays of the Connecticut valley and referred to the larva of a dipterous insect (*Chironomos motilator*).

J. Eights in 1852 described fossil leaves from the clays near Albany. Emerson[2] mentions leaves known as *Mitchella repens*

[1] Emerson, B. K. Geology of Old Hamden and Hampshire Counties, Mass. U. S. Geol. Sur. Monogr. 43, p.720.

[2] *l. c.* p.718.