mostly deposited. It would, therefore, be expected that the larger shells would not be found in the very deep waters i. e. below the depths at which marine algae flourish. This theory is supported by the work of Agassiz while associated with the dredging steamer Blake.[1] In discussing Gastropods and Pelecypods, he thus concludes, " Deep sea dredging has thus afforded few specimens of even moderately large size, judged by the standard of shallow water or littoral shells."

It thus seems well to look on the fauna of these upper Oriskany beds as existing in deeper portions of the sea at the same time that the typical Oriskany Falls fauna lived in comparatively shallow waters. Yet this deeper portion was not removed beyond the reach of land-derived sediment for the beds are more or less argillaceous and silicious limestones.

All the large fossils of the original Oriskany noted above as practically absent from the Port Jervis region, are very abundant at Becraft mountain[2] and also, with the exception of Camarotoechia barrandei, near Rondout N. Y.[3] But they are likewise associated in these regions with many Helderbergian forms. The practical absence of these fossils from the Port Jervis region can not be due to insufficient time for the migration of the species into this region, as they occur both south in Maryland, with also many in Pennsylvania, as well as north in New York State. Nor can it be due to some barrier since many typical Oriskany forms occur here. It may possibly be due to a greater depth of water.

Oriskany-Esopus swamp

This swamp probably rests on the upper beds of the Oriskany, being worn out of the more easily disintegrated Esopus. The preglacial drainage having been obstructed, this has been filled in to a depth of probably 20 or 30 feet in places. It is interesting to note that on Becraft mountain, also, " the contact between the Oriskany

[1] Agassiz, Alexander. Three Cruises of the U. S. Steamer Blake, 2:62.

[2] Clarke, J. M. Oriskany Fauna of Becraft Mountain. N. Y. State Mus. Mem. 3, p.67.

[3] van Ingen & Clark, P. E. Disturbed Fossiliferous Rocks in the Vicinity of Rondout, N. Y. N. Y. State Paleontol. An. Rep't. 1902. p. 1203.