

tions however which are found and which show the intimate relation of the two formations are as follows.

In western New York usually underlying the Oriskany sandstone is found the Cobleskill dolomite which at Buffalo, Dr Grabau¹ has shown, contains a fauna similar to the Cobleskill and which later studies have shown to be identical with the Cobleskill. In Ontario county at Phelps below the Oriskany sandstone is found the Cobleskill or "bullhead" rock as it is known in western New York. This rock here and farther west at Victor and beyond, contains the Cobleskill fauna. Beneath the "bullhead" rock in Ontario county in a thin bed of waterlime, fragments of Eurypterus are found and at Victor a large number of fragments from this horizon were obtained. Beneath this layer of waterlime in Ontario county we find again in the dolomite layer another Cobleskill or "bullhead" fauna in which *Lichas ptyonurus* Hall is found and *Cyathophyllum hydraulicum* Simpson is quite abundant. Beneath this second dolomite layer containing Cobleskill fossils, waterlime beds again occur in which Eurypterus are found.

From the above conditions it would appear that while the Decker Ferry fauna was living in eastern New York the Eurypterus fauna was still to be found in the Salina sea in the western part of the State, and that there were invasions from the eastern sea which at first were only temporary, but which finally caused the retreat or destruction of the Eurypterus fauna.

¹Geol. Soc. Am. Bul. 1900. 11:363.