DISTRIBUTION OF FOSSILS IN THE CHAMPLAIN DEPOSITS

The occurrence of marine fossils in the clays and sands of the New York Champlain beds has long been well known, but scant reference is made in the literature to their upper limits. In the course of the present survey search was made for fossils mainly within the zone of beaches above the zone of clays. In the following notes references are made also to the occurrence of fossil shells found on the northwest slope of the Adirondacks as far west as Ogdensburg. For the purpose of showing their bearing on the reconstruction of the upper marine limit in this region notice is also taken of certain shell-bearing localities in adjacent parts of Canada and Vermont.

As early as 1849 Prof. H. D. Rogers called attention to the fact that the then known shell localities in this geologic province indicated a want of parallelism between the water level of their epoch and that of the present seas. In recent years much more attention has been given to the evidence of warping of the earth's crust as shown by the deformation of traceable shore lines in the district of the great fresh-water lakes which came into existence with the withdrawal of the ice sheet. In a region like that of the upper St Lawrence and Champlain valleys, where beaches occur referable partly to lacustrine and partly to marine bodies of water, the evidence from fossil shells is of more than usual importance.

As having a slight bearing on the distribution of the marine fossils within the State, the occurrence of shells at Ogdensburg and Norwood is here recorded, but the discussion of the upper marine limit in that direction is withheld till a more complete examination of the district has been made.

Fossils at Ogdensburg. This locality has long been known. In 1903 Prof. A. P. Coleman collected Macoma groenlandica from the clays on the low ground in the southern limits of the city, and later in the same season both he and myself found abundant separated valves of the large Macoma calcarea with those of M. groenlandica and rarer Saxicava rugosa in stratified sands on the border of Ogdensburg and the town of Lisbon about ½ mile south of the St Lawrence at an elevation of about 281 feet above the sea. Professor Coleman