

Spraker. The upper beds contain *Ophileta* and seem of about the same age as the basal part of division D of Brainard and Seeley's section. The upper Cassin beds are wholly lacking in the Mohawk valley, and apparently the latter region was uplifted while they were being deposited on the east. Certainly, the connection between the two areas was broken during this time, confining the Cassin fauna to the Champlain basin, and this seems to the writer an added reason for the separation of the Cassin beds from the normal Beekmantown.

On the north side of the Adirondacks the exposures of the formation are poor and infrequent, the dips are flat, and the breadth of outcrop considerable, with the full thickness not showing on the New York side of the international boundary. Nothing definite is known concerning the thickness in this area, but, as its western limits are reached, in the Thousand islands region, it becomes evident that the formation has greatly thinned. On the western side of the region it is wholly absent, the later Black River and Trenton limestones resting directly on the Precambrian, making it perfectly evident that the Beekmantown shore line there lay farther to the west than the present Precambrian boundary. Moreover, the imperfect records of the gas wells of Oswego and Jefferson counties, as given by Orton, indicate a thickness of only 200 feet of Beekmantown rocks under cover in the former county, and none at all in the latter, the former wells being 35 miles, and the latter 15 miles distant from the present Precambrian boundary.¹ It seems therefore that the Beekmantown sea covered by no means all of the present Precambrian region of northern New York, and that the main area left unsubmerged by its waters was on the west and south. On the west the shore was several miles west of the present Precambrian edge; on the south it did not extend in more than from 10 to 30 miles beyond the present edge, as the writer has elsewhere shown;² much less is known about the rate of overlap on the northeast, but the great thickness of both the Potsdam and Beekmantown formations there would indicate that, by the close of the Beekmantown, the sea must have widely encroached on that portion of the region.

¹N. Y. State Mus. Bul. 30, p.442, 458.

²N. Y. State Mus. Bul. p.77.