

spines. Eyes narrow, elongate; the space from the center of the head to the outer margin of the eye much greater than the cheek, and the distance from the anterior angle of the eye to the frontal margin less than the length of the eye. Glabella lobed; hypostoma broad oval.

"Thorax imperfect, preserving six articulations and part of the seventh; the middle lobe wider than the lateral ones. The third articulation is much broader towards and at its lateral margin and is prolonged obliquely downwards in a sharp spine, which reaches below the seventh articulation; the lateral extremities of the other articulations produced in short, acute spines.

"Another fragment, which is apparently of the same species, preserves eleven articulations of the thorax and the pygidium. The upper articulations are imperfect at their extremities; the last one is bent abruptly downwards, and terminates in a long spine on each side reaching below the pygidium. Pygidium semioval; the axis marked by four annulations, the two upper of which are faintly indicated in the lateral lobes.

"This species differs from the preceding in its proportionally narrower form, the relative proportions of the parts of the head, and the short, acute posterior spines. The comparative width of the middle and lateral lobes of the thorax is a very distinguishing feature.

"*Geological position.*—In the shales of the upper part of the Hudson River group."

The fragment of the thorax and pygidium described above proved, on subsequent examination, to be a portion of *Bathynotus holopyga* (Thirteenth Ann. Rep. N. Y. State Cab. Nat. Hist., p. 389), which left the posterior portions of *O. Vermontana* undescribed.

No further information of the species has been published to date. Mr. Whitfield (Bull. Amer. Mus. Nat. Hist., vol. i, p. 152) says: "On a critical examination of these forms and comparison with the different sizes of *O. Thompsoni* in the collection, I find that the distinctive features of *O. Vermontana* become less and less marked and become merged into those of *O. Thompsoni* as the specimens increase in size, and I am inclined to think the two species represent only different stages of growth or development of one form." He also figures on plate xv three specimens of *O. Thompsoni* as *O. Vermontana*.

The species is of rather rare occurrence. During the summer of 1883, the writer obtained one specimen, and two more the following year. They were associated with *Olenellus Thompsoni*. Mr. Edward Hurlburt, of Utica, New York, collected at the same locality, and fortunately found a very perfect specimen with its matrix; the latter was secured for the National Museum collections, and a cast taken from it which is the original of the figure on plate xxiv. Mr. Hurlburt kindly loaned the relief specimen for study, and from it and three other specimens the following description is drawn:

*Description.*—General form narrow, elongate, tapering gradually from the base of the head to the pygidium.