

In order to ascertain definitely the true horizon of the *Siphonotreta* in question, it was necessary to find it in situ, and further to obtain from the same bed or beds in which it occurs as many species of fossils as possible, in other words, determine what were its contemporaries. It had been previously pointed out that the lowest measures of the Utica formation about Ottawa consisted in a series of impure bands of limestone at times, slightly dolomitic and interstratified with black brittle bituminous shales all abounding in fossils. (See Geological Report, Transactions Ottawa Field-Naturalists' Club, Vol. I. No. 4, p. 66; also Vol. II, p. 347). The close resemblance in lithological character between the specimens sent to Dr. Davidson by Mr. Whiteaves and the rocks constituting the lower portion of the Utica formation where it crops out along the right bank of the Rideau River, opposite the Rifle Range, near the rapids, was such as to warrant a careful search for *Siphonotreta* in that locality. After a somewhat careful search on the part of those members of the Club above mentioned, a goodly number of specimens of this interesting species were found at the rapids along with other forms to be mentioned later on.

The precise bed in which *Siphonotreta Scotica* occurs, is that band of impure bituminous limestone, black or dark brown in colour, which crosses the Rideau River at this locality and forms the rapids or slight fall, giving the peculiar orographic aspect to that portion of the river which it possesses and dividing the smooth flowing water above this point stretching on to near Hurdman's Bridge from the rapid running waters below.

The following is a section of the measures of the Utica formation exposed at the head of the rapids opposite the Rifle Range, and includes the zone of *Siphonotreta Scotica*. The middle and upper measures of the Utica have been denuded away, especially during glacial times, and the uppermost beds of the section are capped with Post-Tertiary deposits made up for the most part of debris of the 'till' and Saxicava sand and associated gravel formations with 'erratics' in abundance, the 'Leda clay' having been washed away in latter times. The section is given in descending order:—