

position, within the general limits of the Trenton, of the species described, furnish us the means of interesting comparison with the similar occurrences in Victoria county.

Billings' descriptions in the works above mentioned include eight genera and twenty species of Cystids, Starfishes, etc., and three genera and thirty-three species of Crinoids, from the Trenton, all new to science—besides several new genera and species from other Ordovician horizons.

Further valuable contributions to our knowledge of the Trenton crinoidal fauna were made by Mr. Walter R. Billings, who in 1881 to 1887, in the Transactions of the Ottawa Field Naturalists' Club, described several new species and one new genus from Ottawa and Belleville. Some additional species were described by Dr. J. F. Whiteaves, Sir James Grant, Mr. L. M. Lambe, and Dr. W. A. Parks.

By far the greater part of the Echinodermata described by these authors was derived from the lower and middle parts of the Trenton beds at Ottawa and vicinity. Among considerable collections made in the same region by Mr. John Stewart, and afterwards acquired for the Museum of the Geological Survey, were some which are believed to have come from the upper part. Of the forty or more species found at Kirkfield, thirty are readily recognized as among those described by E. and W. R. Billings, chiefly from the lower and middle beds at Ottawa, whereas some forms believed to be from the upper beds at Ottawa are wholly wanting. Mr. W. A. Johnston, who made the fine collections at Kirkfield for the Geological Survey, informs me that the zone from which these fossils were obtained probably extends from twenty-five to seventy-five or eighty feet above the heavy coral beds which are regarded as the base of the Trenton, or the top of the Black River beds; and that the Echinodermata are most abundant in the lowest twenty-five feet of this zone. The almost complete identity of the crinoidal fauna in the two regions would, therefore, seem to indicate the approximate continuity of the fossil-bearing beds, and to confirm the statement of Dr. Ami, in his paper on the 'Outliers of the Ottawa Palæozoic Basin' (Royal Soc. Canada, 1896, p. 154, Sec. IV) that 'the echinoderms abound in the shaly and thin-bedded portions of the lower Trenton of Hull and Ottawa.' The fossils at Kirkfield also occur chiefly in thin, shaly layers; and while the preservation of the specimens is often very good for the study of structural details, many of them are much