

ON THE OCCURRENCE OF A SPECIES OF WHITTLESEY IN THE RIVERSDALE FORMATION (EO-CARBONIFEROUS) OF THE HARRINGTON RIVER ALONG THE BOUNDARY LINE BETWEEN COLCHESTER AND CUMBERLAND COUNTIES, NOVA SCOTIA, CANADA.

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During the collecting season of 1895-6-7-8-9, the writer has spent a portion of his time in making a palæontological survey of the various rock-formations in critical localities comprised in the counties of Pictou, Antigonish, Colchester, Cumberland, Hants and King's, in Nova Scotia, for the Geological Survey Department, with a view of ascertaining the field-relations and succession of the faunas and floras entombed in them and determining their position in the column of Palæozoic sediments. Much of the work has been in the direction of defining the precise geological horizon of the so-called Devonian rocks of Union and Riversdale as described by Mr. Hugh Fletcher,* which series or formation of rocks also correspond to those described by Dr. R. W. Ellis† in his "Report on the geological formations of Eastern Alberta and Westmoreland Counties, New Brunswick, and a portion of Cumberland and Colchester Counties, Nova Scotia," embracing the Spring Hill Basin and the Carboniferous System north of the Cobequid Mountains," in which he describes as doubtfully Lower Carboniferous, and probably Devonian, rocks having the same geological relations as those "rocks of Union and Riversdale" referred to above.

Rocks of this formation in Nova Scotia had been referred by Sir William Dawson to the Carboniferous (Millstone Grit); and my best endeavours were directed to the finding of evidence to prove the age to which these rock formations were to be referred; whilst in doing so, I have kept constantly in view the discovery of Devonian types. In the summary reports of the Department for the past three years, brief results, as obtained from season to season, have been published, in which it will be seen that the rocks in question are now referred to the Carboniferous System, from the definite and irresistible flood of internal evidence which has accrued and been obtained from them.

In a paper "On the Sub-divisions of the Carboniferous System in Canada, with special reference to the position of the Union and

* Annual Rep. Geol. and Nat. Hist. Survey of Canada, Vol. 2, p. 65 P; 1887. Montreal.

† Annual Rep. Geol. and Nat. Hist. Survey of Canada, Vol. 1. p. 51 E. etc. 1886. Montreal.