

it seems evident from other workers' reports that the Riversdale beds probably represent the same geological age. The St. John beds are by far the richer palaeobotanically, and from them a fine fossil flora is available for study. It need scarcely be stated now that the fossil plants from Gaspé and other places, which were described together with the St. John plants in Sir William Dawson's memoir, are not mentioned in my present report, because they are undoubtedly Devonian, and represent an entirely distinct deposit.

SHORT HISTORICAL NOTES ON PREVIOUS WORK ON THE ST. JOHN BEDS.

The controversial subject of the age of these deposits has been brought before the public on so many occasions that I shall not enter too fully into the history of the work done on them. A comparatively recent and admirable paper by White (1902) gives a very readable summary of the state of affairs up till that time. Since then Dr. Matthew has in several places urged the claims of the plants to be considered Silurian, a claim so startling to palaeontologists that the present work resulted, as a definite attempt to sift all the evidence thoroughly and impartially.

A few plants had been observed by Dr. Gesner, Dr. Robb, and others in the St. John beds, but they were not made use of and the "Fern Ledges" flora may be said to have been discovered shortly prior to 1861 by Mr. G. F. Matthew and Prof. Hartt (see Hartt's *Life* by Rathbun, 1878) who sent their plants to Sir William Dawson for identification and description. All the information given in Dawson's earlier work came either from Hartt, who studied the beds elaborately as can be seen from his detailed account of the section of the Fern Ledges, published in Bailey's report (see Hartt, 1865) and re-printed almost verbatim in Sir W. Dawson's *Acadian Geology*, 2nd Edition, or came from Dr. Matthew. In 1861, (p. 162) Dawson wrote, "of the plants described in this paper, only a few have been discovered by myself. The greater part are from the collection of Mr. G. F. Matthew of St. John, New Brunswick." Hartt planned a monograph on the flora himself (see Hartt, 1865, p. 133) for he says, "It is my intention, after having made yet more