

Since the palaeontological correlations that Mr. Fletcher finds so misleading are largely based on the evidence of fossil plants; and since he does me the honor to mention my opinions regarding the equivalents of several of the Upper Palaeozoic formations, I herein present somewhat more definitely the palaeontological evidence as seen from my own standpoint. At the same time a seeming discrepancy between one of my correlations and that of the same flora by Mr. Kidston, whom Mr. Fletcher also quotes, will be explained.

From the outset it must be borne in mind that I personally have not visited the region in question, and the views expressed regarding the ages of several of the Nova Scotia plant beds are based exclusively on palaeontological evidence, interpreted in accordance with our knowledge of the fossil floras of the Appalachian province or of Europe. Reasoning from the observed vertical and horizontal distribution both of identical and of related genera and species, and especially from the stratigraphical occurrence of identical or essentially identical floras, I shall state (1) what, in my judgment, are the approximate positions of the respective plant beds as naturally indicated by the floras, and (2) the maximum of time latitude within which the floras should fall. The correlations are theoretical, and may be slightly modified by local stratigraphical conditions. Such a method is liable to error, but the errors, if the conclusions are based on ample fossil material, should fall within reasonable limits of proximity to the truth. Surely the coefficient of error should not be so great as to permit an entire geological period to intervene between its palaeontologically theoretical position and its actual place.

Only those portions of the formations actually furnishing the plant material are included in this discussion. It is conceived that the time interval represented by one or more of the enormously thick subdivisions of the Nova