these creatures, found at various times and at various places, are scattered through papers ranging in date from 1844 to 1891,[1] and are too fragmentary to give complete information respecting the structures of the animals, and their conditions of existence.

Footprints.

It has often happened to geologists, as to other explorers of new regions, that footprints on the sand have guided them to the inhabitants of unknown lands, and such footprints, proverbially perishable, may be so preserved by being filled up with matter deposited in them as to endure for ever. This we may see to-day in the tracks of sandpipers and marks of raindrops preserved in the layers of alluvial mud deposited by the tides of the Bay of Fundy, and which, if baked or hardened by pressure, might become imperishable, like the inscriptions of the old Chaldeans on their tablets of baked clay. The first trace ever observed of reptiles in the Carboniferous system consisted of a series of small but well-marked footprints found by Sir W. E. Logan, in 1841, in the lower coal measures of Horton Bluff, in Nova Scotia; and as the authors of most of our general works on geology have hitherto, in so far as I am aware, failed to do justice to this discovery, I shall notice it here in detail. In the year above mentioned, Sir William, then Mr. Logan, examined the coal fields of Pennsylvania and Nova Scotia, with the view of studying their structure, and extending the application of the discoveries as to beds with roots, or Stigmaria underclays, which he had made

have been recognised on the continent of Europe, in Great Britain, and in the United States. They belong to a number of distinct types, all, however, being of batrachian affinities.

[1] Papers by Lyell, Owen, and the author, in the *Journal of the Geological Society of London*, i. ii. ix. x. xi. xvi. xvii. xviii.; "Acadian Geology," by the author; Papers in *Trans. Royal Society of London*, *Am. Jl. of Science*, and *Geological Magazine*.