

ing whether they retained the superficial markings of *Sigillariæ*, and with reference to the fossils contained in them. It was while examining a pile of these "fossil grindstones," that we were surprised by finding on one of them what seemed to be fragments of bone. On careful search other bones appeared, and they had the aspect, not of remains of fishes, of which many species are found fossil in these coal measures, but rather of limb-bones of a quadruped. The fallen pieces of the tree were carefully taken up, and other bones disengaged, and at length a jaw with teeth made its appearance. We felt quite confident, from the first, that these bones were reptilian; and the whole, being carefully packed and labelled, were taken by Sir Charles to the United States, and submitted to Prof. J. Wyman of Cambridge; who recognized their reptilian character, and prepared descriptive notes of the principal bones, which appeared to have belonged to two species. He also observed among the fragments an object of different character, apparently a shell; which was recognized by Dr. Gould of Boston, and subsequently by Mr. Deshayes, as probably a land-snail, and has since been named *Pupa vetusta*.

The specimens were subsequently taken to London and re-examined by Prof. Owen, who confirmed Wyman's inferences, added other characters to the description, and named the larger and better preserved species *Dendrerpeton Acadianum*, in allusion to its discovery in the interior of a tree, and to its native country of Acadia or Nova Scotia. With the aid of Plate III, I shall now endeavour to describe this species as fully as the materials at my command will allow, and shall then make some remarks on its affinities, habitat, and mode of life. It is necessary to state in explanation of the fragmentary character of the remains represented in the plate, that in the decay of the animals imbedded in the erect trees at the Joggins, their skeletons have become disarticulated, and the portions scattered, either by falling into the interstices of the vegetable fragments in the bottom of the hollow trunks, or by the water, with which these may have sometimes been partly filled. We thus can obtain only separate bones; and though all of these are no doubt present in each case, it is impossible in breaking up the hard matrix to recover more than a small proportion of them. For this reason I have been obliged to have recourse, not merely to the original specimen whose discovery is noticed above, but to three others subsequently obtained by me; all however belonging, on the evidence of the teeth and more important bones, to one.