

footprints referred to previously belong to this animal, it must have frequented the shores, either in search of garbage, or on its way to and from the waters. The occurrence of its remains in the stumps of *Sigillaria*, with land snails and millipedes, shows also that it crept in the shade of the woods in search of food; and in noticing coprolitic matter, in a subsequent page, I shall show that remains of excrementitious substances, probably of this species, contain fragments attributable to smaller reptiles, and other animals of the land.

All the bones of *Dendroterpeton* hitherto found, as well as those of the smaller reptilian species hereafter described, have been obtained from the interior of erect *Sigillariæ*, and all of these in one of the many beds, which, at the Joggins, contain such remains. The thick cellular inner bark of *Sigillaria* was very perishable; the slender woody axis was somewhat more durable; but near the surface of the stem, in large trunks, there was a layer of elongated cells, or bast tissue, of considerable durability, and the outer bark was exceedingly dense and indestructible.<sup>1</sup> Hence an erect tree, partly imbedded in sediment, and subjected to the influence of the weather, became a hollow shell of bark; in the bottom of which lay the decaying remains of the woody axis, and shreds of the fibrous bark. In ordinary circumstances such hollow stems would be almost immediately filled with silt and sand, deposited in the numerous inundations and subsidences of the coal swamps. Where, however, they remained open for a considerable time, they would constitute a series of pitfalls, into which animals walking on the surface might be precipitated; and being probably often partly covered by remains of prostrate trunks, or by vegetation growing around their mouths, they would be places of retreat and abode for land snails and such creatures. When the surface was again inundated or submerged, all such

<sup>1</sup> See a paper by the author, on the Structures of Coal, *Journal of the Geological Society*, vol. xv.; also "Supplement to Acadian Geology."