http://geology.19thcenturyscience.org/books/1893-Dawson/README.htm

were destructive to them as living plants; and on the contrary, that the conditions in which these forests may have flourished for centuries must have been those in which there was little chance of their remains being preserved to us, in any other condition at least than that of coal, which reveals only to careful microscopic examination the circumstances, whether aërial or aquatic, under which it was formed.

It is also noticeable that, in conditions such as those of the coal formation, it would be likely that some plants would be specially adapted to occupy newly emerged flats and places liable to inundation and silting up. I believe that many of the *Sigillariæ*, and still more eminently the *Calamites*, were suitable to such stations. There is direct evidence that the nuts named Trigonocarpa were drifted extensively by water over submerged flats of mud. Many *Cardiocarpa* were winged seeds which may have drifted in the air. The Calamites may, like modern *Equiseta*, have produced spores with elaters capable of floating them in the wind. One of the thinner coals at the Joggins is filled with spores or spore cases that seem to have carried hairs on their surfaces, and may have been suited to such a mode of dissemination. I have elsewhere proved[1] that at least some species of *Calamites* were, by their mode of growth, admirably fitted for growing amid accumulating sediment, and for promoting its accumulation.

The reptiles of the coal formation are probably the oldest known to us, and possibly, though this we cannot affirm, the highest products of creation in this period. Supposing, for the moment, that they are the highest animals of their time, and, what is perhaps less likely, that those which we know are a fair average of the rest, we have the curious fact that they are all carnivorous, and the greater part of them fitted to find food in the water as well as on the land. The plant feeders of the period, on the land at least, are all invertebrates, as snails,

[1] "Acadian Geology," chapter on Coal Plants.