

seen that these teeth differ very markedly in their proportions and form from those of the larger species represented in Pl. III): (3) The greater plication of the ivory in the intermaxillary teeth; (Figs. 8, 9; in *D. Acadianum* these teeth are, on the outside, simple almost to the base, and plicated on the inner side, while in this species they are plicated all around like the inner maxillary teeth): (4) The form of the skull, which has the orbits larger in proportion, and is also shorter and broader. On the other hand, when we have described the species of *Hylonomus*, it will be seen that this animal, except in size, differs from them quite as widely as does *D. Acadianum*.

The distinctness of *D. Oweni* is further confirmed by the fact that I possess small jaw bones of *Dendroperpeton*, about the size of those of this species, but having the teeth similar in form to those of the larger species; these I suppose to have belonged to young individuals.

On examining the figures, it will be seen that the bones of the skull were corrugated as in the large *Dendroperpeton*, but with a smaller pattern. The forms of the jaw-bones also, and of the vertebræ, ribs, scapular bone, bones of the limbs, and bony scales, are very similar, and indicate that in general form this creature was not far removed from its larger relative. The bones of the foot, represented in Fig. 14, especially deserve attention. This is the most perfect foot of *Dendroperpeton* hitherto found; and I have enlarged it in the figure, in order more distinctly to show its parts. It presents three long toes, with traces of a smaller one at each side, so that there were probably five in all. If these toes be compared with the footprints on the slab discovered by Dr. Harding, represented in Pl. I, Fig. 2, it will be seen that they very closely correspond, though the toes of the present species are much smaller. The footprints are precisely those which we may suppose an animal of the size of *Dendroperpeton Acadianum* would have made, if, as the bones found render in every way probable, this larger species had a foot similar to that of *D. Oweni*. I suppose, for this reason, that these footprints are really those of *Dendroperpeton Acadianum*; and that this species continued to exist from the time of the lower coal measures, to the period when those higher beds of the series, in which its bones are found at the Joggins, were deposited.

The present species must have lived in the same places with its larger relative; but may have differed somewhat in its habits.