

being deeply hollowed by conical cavities, which appear even to meet in the centre. There is, however, a large and flattened neural spine. The vertebræ are usually much crushed, and it is almost impossible to disengage them from the stone. The ribs are long and curved, showing a reptilian style of chest. The posterior limb seems to have been not larger than the anterior, perhaps smaller. The tibia, or principal bone of the fore leg is much flattened at the extremity, as in some Labyrinthodonts, and the foot must have been broad, and probably suited for swimming, or walking on soft mud, or both. That the hind limb was adapted for walking is shown, not merely by the form of the bones, but also by that of the pelvis.

The external scales are thin, oblique-rhomboidal or elongated-oval, marked with slight concentric lines, but otherwise smooth, and having a thickened ridge or margin, in which they resemble those of *Archegosaurus*, and also those of *Pholidogaster pisciformis*, described by Huxley from the Edinburgh coal field,—an animal which indeed appears in most respects to have a close affinity with *Dendrerpeton*. The microscopic structure of the scales is quite similar to that of the other bones, and different from that of the scales of ganoid fishes, the shape of the cells being batrachian. For other particulars of its structure reference may be made to the papers named at the end of the chapter.

With respect to the affinities of the creature, I think it is obvious that it is most nearly related to the group of Labyrinthodonts, and that it has the same singular mixture of batrachian and reptilian characters which distinguish these ancient animals, and which give them the appearance of prototypes of the reptilian class. A second and smaller species of *Dendrerpeton* was subsequently obtained at the Joggins, and others have been found, more especially by Fritsch, in the Carboniferous and Permian of Europe.

This ancient inhabitant of the coal swamps of Nova Scotia