

in each case, it is often impossible in breaking up the hard matrix to recover more than a portion of them. The original description by Owen was therefore based on somewhat imperfect material, but additional specimens subsequently found have supplemented it in such a manner as to enable us somewhat completely to restore in imagination the form of the animal, which, though much smaller than *Baphetes*, agrees with it in its sculptured bones, in its bony armature, especially beneath, and in its plicated teeth.

In form, *Dendroperpeton Acadianum* was probably lizard-like ; with a broad flat head, short stout limbs and an elongated tail ; and having its skin, and more particularly that of the belly, protected by small bony plates closely overlapping each other, and arranged *en chevron*, in oblique rows meeting on the mesial line, where in front was a thoracic plate. It may have attained the length of two feet. The form of the head is not unlike that of *Baphetes*, but longer in proportion ; and much resembles that of the labyrinthodont reptiles of the Trias. The bones of the skull are sculptured as in *Baphetes*, but in a smaller pattern.

The fore limb of the adult animal, including the toes, must have been four or five inches in length, and is of massive proportions. The bones were hollow, and in the case of the phalanges the bony walls were thin, so that they are often crushed flat. The humerus, or arm bone, however, was a strong bone, with thick walls and a cancellated structure toward its extremities ; still even these have sometimes yielded to the great pressure to which they have been subjected. The cavity of the interior of the limb bones is usually filled with calcspar stained with organic matter, but showing no structure ; and the inner side of the bony wall is smooth without any indication of cartilaginous matter lining it.

The vertebræ, in the external aspect of their bodies, remind one of those of fishes, expanding toward the extremities, and