

species, and all being nearly, though not absolutely, of the same size. It is also proper to state that in the case of the original specimen, and another still more perfect one, both of which are now in London, I have been able to refer only to the published plates, and to add to these from parts of two additional individuals still in my own collection.

In form, *Dendrerpeton 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. 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 (Fig. 1). The bones of the skull are sculptured as in *Baphetes*, but in a smaller pattern (Figs. 8, 9). The nostrils are small, and near the muzzle: the orbits are circular, and separated by a space of more than their own diameter. In the upper jaw there is a series of conical teeth on the maxillary and intermaxillary bones (Figs. 5, 15). Those on the intermaxillaries are much larger than the others, and have the aspect of tusks or canines (Figs. 3, 13). Within this outer series of teeth, and implanted apparently in palatal bones, as in *Archegosaurus Decheni*, there is a second series of teeth, closely placed, or with intervals equal to the diameter of one tooth. These inner teeth are longer than the others, implanted in shallow sockets, to which they are anchylosed, and have the dentine plicated, except toward the point (Figs. 2, 4, 6, 7, 17). A third group of teeth, blunt at the points, largely hollow in the interior, and with the dentine quite simple, appears in detached bones, which may represent the vomer (Fig. 12). Only a part of this formidable armature of teeth appears in the skull represented in Fig. 1, as the bones of the roof of the mouth have been removed, adhering to the opposite side of the matrix; but the fact of the occurrence of two sets of teeth was ascertained by Prof Wyman, from the original specimens, and is manifest in the fragment represented in Fig. 17; while the other teeth, supposed to be vomerine, appear in fragments which must, from their size and collocation, have belonged to *Dendrerpeton*. It will be observed that all these teeth are anchylosed to the bone; and while those of the vomer are thinly walled and simple, those on the maxillaries and intermaxillaries are plicated toward the base only, while the inner series of palatal teeth are plicated more than half way up. In