

which possess a few bony vertebræ may be regarded as exceptions, in which ossification took place in a structure essentially cartilaginous.*

The fishes of the genus *Palæoniscus* are often found in the shales and marls of the Triassic and Carboniferous systems of England and Scotland. At East Thicky, in the county of Durham, and Caithness, in Scotland, numerous specimens have been found.† The lower Carboniferous strata at Burdie-house, a locality we have before mentioned, have yielded several new species of *Palæoniscus*, associated with teeth and other remains of large sauroid fishes.‡ On the continent they alike prevail in deposits of the same epoch; Eisleben and Mansfeld, in Saxony, are well-known localities. In North America they have been discovered in Triassic strata.§ In fine, the genera *Amblypterus*

* In some recent fishes the spinal column is not composed of bony vertebræ, but consists of a continuous, cylindrical, gelatinous chord, with an external ligamentous sheath; while the processes which protect the spinal marrow are ossified. This is strikingly exemplified in the *Lepidosiren*, a cycloid fish from the river Gambia; the skeleton is partly cartilaginous, and partly osseous; and the bones are of a green colour, as in the Gar-pike. See Professor Owen's Memoir on the *Lepidosiren annectens*; Linnean Trans. Vol. XVIII. Part 3.

† See Professor Sedgwick on Magnesian Limestone; and on the Deposits in the North of Scotland; Geol. Trans. Vol. III. new series, plates 8—12, pp. 77, and 159.

‡ Dr. Hibbert's Memoir on the Fossils of Burdie-house.

§ Geology of Massachusetts, by Professor E. Hitchcock.