

*Fishes in Strata of the Carboniferous Order.*

I select the genus *Amblypterus* (Pl. 27<sup>b</sup>), as an example of Fishes whose duration was limited to the early periods of geological Formations; and which are marked by characters that cease after the deposition of the Magnesian limestone.

This genus occurs only in strata of the Carboniferous order, and presents four species at Saarbrück, in Lorraine;\* it is found also in Brazil. The character of the teeth in *Amblypterus*, and most of the genera of this early epoch, shews the habit of these Fishes to have been to feed on decayed sea-weed, and soft animal substances at the bottom of the water: they are all small and numerous, and set close together like a brush. The form of the body, being not calculated for rapid progression, accords with this habit.

\* The Fishes at Saarbrück are usually found in balls of clay ironstone, which form nodules in strata of bituminous coal shale. Lord Greenock has recently discovered many interesting examples of this, and other genera of Fishes in the coal formation at Newhaven, and Wardie, near Leith. The shore at Newhaven is strewed with nodules of ironstone, washed out by the action of the tide, from shale beds of the coal formation. Many of these ironstones have for their nucleus a fossil *Amblypterus*, or some other Fish; and an infinitely greater number contain Coprolites, apparently derived from a voracious species of *Pygopterus*, that preyed upon the smaller Fishes.