

Gasteropoda.
Cephalopoda.
Crustacea.

Annulosa.
Fishes.
Enaliosauria.

Of freshwater animals and plants, we have perhaps none in the Lias; but terrestrial plants are represented by fragments of coniferous trees of considerable magnitude, often converted to brilliant jet.

MEGALOSAURIAN PERIOD.—The depression of the sea-bed during the period which succeeded the Lias must have been subject to several interruptions and renewals. For in this series, as it appears in Yorkshire, we have several alternations of oolite, the product of salts dissolved in the sea-water; shales widely diffused in that water; sandstones full of false bedding, indicative of shallow and variable currents; ironstone and beds of coal, which imply not far distant land. Swampy land, if not river channels bearing fresh water, we may perhaps readily admit even in the very area of Yorkshire, for stems of *Equiseta* stand upright in certain sandstones near Whitby and Osmotherley*, like the *Sigillariæ* and *Lepidodendra* of the older deposits, and like them are associated with coal. But we cannot from this occurrence, or from the bones of land lizards (*Megalosaurus*) in the Coralline Oolite, conclude that there was *elevated* land in the region where now the North York Moors rise 1485 feet above the sea.

Marine plants are but slightly traced in any of the strata of this period in Yorkshire, but marine animals abound in all the limestones, and many of the sandstones and clays. The following are the main groups:—

Amorphozoa.
Polyparia.
Foraminifera.
Asterida.
Echinida.
Crinoidea.

Dimyaria.
Monomyaria.
Brachiopoda.
Gasteropoda.
Cephalopoda.
Crustacea.

* The observation at Osmotherley is due to Murchison.