

considered to belong to the latter formation—as they undoubtedly do physically—until they were shown, by Dr. Thomas Wright, of Cheltenham, to be more nearly allied, by their fossils, to the Lias below than to the Inferior Oolite above, into which they form the passage-beds.

In France the Lias abounds in the Calvados, in Burgundy, Lorraine, Normandy, and the Lyonnais. In the Vosges and Luxembourg, M. Elie de Beaumont states that the Lias containing *Gryphæa incurva* and *Lima gigantea*, and some other marine fossils, becomes arenaceous; and around the Harz mountains, in Westphalia and Bavaria, in its lower parts the formation is sandy, and is sometimes a good building-stone.

“In England the Lias constitutes,” says Professor Ramsay, “a well-defined belt of strata, running continuously from Lyme Regis, on the south-west, through the whole of England, to Yorkshire on the north-east, and is an extensive series of alternating beds of clay, shale, and limestone, with occasional layers of jet in the upper part. The unequal hardness of the clays and limestones of the Liassic strata causes some of its members to stand out in the distinct minor escarpments, often facing the west and north-west. The Marlstone forms the most prominent of these, and overlooks the broad meadows of the lower Lias-clay, that form much of the centre of England.” In Scotland there are few traces of the Lias. Zoophytes, Mollusca, and Fishes of a peculiar organisation, but, above all, Reptiles of extraordinary size and structure gave to the sea of the Liassic period an interest and features quite peculiar. Well might Cuvier exclaim, when the drawings of the Plesiosaurus were sent to him: “Truly this is altogether the most monstrous animal that has yet been dug out of the ruins of a former world!” In the whole of the English Lias there are about 243 genera, and 467 species of fossils. The whole series has been divided into zones characterised by particular Ammonites, which are found to be limited to them, at least locally.

Among the Echinodermata belonging to the Lias we may cite *Asterias lumbricalis* and *Palæocoma Furstenbergii*, which constitutes a genus not dissimilar to the star-fishes, of which its radiated form reminds us. The Pentacrinites, of which *Pentacrinites Briareus* is a type, ornaments many collections by its elegant form, and is represented in Figs. 79 and 89. It belongs to the order of Crinoidea, which is represented at the present time by a single living species, *Pentatrinus caput-Medusæ*, one of the rare and delicate Zoophytes of the Caribbean sea.

Oysters (*Ostrea*) made their appearance in the Muschelkalk of the last period, but only in a small number of species; they increased greatly in importance in the Liassic seas.