

PART VI.

JURASSIC OR OOLITIC PERIOD.

CHAPTER XXXI.

GENERAL INTRODUCTION.

THIS great series of fossiliferous rocks first received the name of "*Oolitic*" from William Smith, owing to the nature and characteristic structure of many of its limestones in England.¹ The Continental geologists (those of France and Switzerland) applied the term "*Jurassic*" to the whole group, from the great development of the system among the Jura mountains, or the chain occupying the north-west frontier of Switzerland. Lithological names being objectionable, especially when applied to large groups of rocks, the term "*Oolitic*" for the group was abandoned, and the more characteristic name "*Jurassic*" is now universally received.

General Description.—Diversity of lithological structure is a marked feature throughout the whole of the Jurassic rocks wherever they have been recognised. The entire series, from the Lias to the Portland Oolite, varies over extended areas. The Jurassic rocks of France form a type by themselves, and differ essentially from the North German series, and also from the Alpine type. The general facies of the Jurassic system, traced into North-western India, also widely differs from that of Europe. That general uniformity of lithological character, which so distinguishes the Palæozoic and Triassic systems, no longer prevails through the Jurassic series; yet, with all these variations in aspect and petrological structure, the Fauna and Flora, as a whole, differ but little.

Distribution.—The Jurassic system covers a vast area in Europe, as well as nearly the eastern half of England, through which it ranges as a broad irregular band from the coast of north-east Yorkshire to Lyme Regis and Weymouth or Portland on the south; the western boundary is defined by the sinuous line of the Lower Lias and the plain of the New Red Sandstone, ranging from the Tees to the Exe. The continuity is not lost throughout its whole length. The New Red and Lias dip gently to the east or south-east, and upon them the succeeding higher members, or limestones and clays of the Jurassic series, rest. The rocks underlie and contain the Cretaceous and Ter-

¹ *ω'ον*, an egg, and *λίθος*, stone.