

existing races, the polyparia present some general resemblance, with constant and obvious lesser differences. The sponges are seldom so large as those of the South Seas, and appear most to resemble those of New Holland. It would be difficult to doubt that the radiaria of this system are altogether more like the existing pentacrinus, stellerida, and echinida, than are those of earlier date. The beautiful genus cidaris, in particular, exhibits in many ways a decided analogy to recent tropical species. The mesomyona and brachiopoda, taken together, still predominate over the plagimyona; and cephalopoda are more numerous than any other group of mollusca; thus offering a broad distinction between the system of oolitic and modern life in the sea. The fishes belong mostly to the ganoid division of Agassiz, and are remarkable for the beauty of their preservation in the lias of Dorsetshire, Leicestershire, and Yorkshire. Among the saurians, those which frequented the water predominate in number, but the largest forms were terrestrial (iguanodon, megalosaurus). The natural order of turtles was exceedingly developed in this period. Hugi has found in the Jura formation, about Soleure alone, more than twenty species of emys (fresh water). We are not to imagine the few mammalia, insects, and plants, yet published from these formations, a fair specimen of these races, as they existed on the land during the oolitic period. Doubtless we may believe that the buprestidæ of Stonesfield were not the only beetles that fed its pterodactyle and didelphides: of these latter the few jaws yet found convey only partial information; but it is interesting to know that the earliest mammalia, of which we have yet any trace, were of the marsupial division, now almost characteristic of Australia, the country where yet remain the trigonia, cerithium, isocardia, zamia, tree fern, and other forms of life so analogous to those of the oolitic periods.

The following table will show somewhat of the distribution of remarkable families and genera in the oolitic system, which appears cut off from the cretaceous rocks above by a more decided line than the older formations.