

at length been undertaken by an individual, to whose hands Cuvier at once consigned the materials he had himself collected for this important work. The able researches of Professor Agassiz have already extended the number of fossil Fishes to two hundred genera, and more than eight hundred and fifty species.* The results of his enquiry throw a new and most important light on the state of the earth, during each of the great periods into which its past history has been divided. The study of fossil Ichthyology is therefore of peculiar importance to the geologist, as it enables him to follow an entire Class of animals, of so high a Division as the vertebrate, through the whole series of geological formations; and to institute comparisons between their various conditions during successive Periods of the earth's formation, such as Cuvier could carry only to a much more limited extent in the classes of Reptiles, Birds, and Mammifers, for want of adequate materials.

ment of these Fishes has been more or less defective, from an endeavour to arrange them under existing genera and families. The imperfection of his own, and of all preceding classifications of Fishes, is admitted by Cuvier; and one great proof of this imperfection is that they have led to no general results, either in Natural History, Physiology, or Geology.

* No existing genus is found among the fossil Fishes of any stratum older than the Chalk formation. In the inferior chalk there is one living genus, *Fistularia*; in the true chalk, five; and in the Tertiary strata of M. Bolca, thirty-nine living genera, and thirty-eight which are extinct.—Agassiz.