

ing disparted families which we find united in the intermediate families that no longer exist. Without some such preparation, the inquirer would inevitably share the fate of the poetical dreamer of Dunkeld, by losing his way in a labyrinth. In passing, therefore, with this object from the extinct to the recent, I venture to solicit, for a few paragraphs, the attention of the reader.

Fishes, the fourth great class in point of rank in the animal kingdom, and, in extent of territory, decidedly the first, are divided, as they exist in the present creation, into two distinct series — the osseous and the cartilaginous. The osseous embraces that vast assemblage which naturalists describe as “fishes properly so called,” and whose skeletons, like those of mammalia, birds, and reptiles, are composed chiefly of a calcareous earth pervading an organic base. Hence the durability of their remains. In the cartilaginous series, on the contrary, the skeleton contains scarce any of this earth: it is a framework of indurated animal matter, elastic, semi-transparent, yielding easily to the knife, and, like all mere animal substances, inevitably subject to decay. I have seen the huge cartilaginous skeleton of a shark lost in a mass of putrefaction in less than a fortnight. I have found the minutest bones of the osseous ichthyolites of the Lias entire after the lapse of unnumbered centuries.

The two series do not seem to precede or follow one another in any such natural sequence as that in which the great classes of the animal kingdom are arranged. The mammifer takes precedence of the bird, the bird of the reptile, the reptile of the fish; there is progression in the scale — the arrangement of the classes is consecutive, not parallel. But in this great division there is no such progression the osseous fish takes no precedence of the cartilaginous fish