

we know that in the shallows of that muddy sea, the Creator wrought with all His wonted wisdom and inexhaustible fertility of resource, in the production of a dynasty of fishes of very extraordinary form, but high type, and which manifested exquisite faculties of adaptation to the circumstances in which they were placed.

In glancing at the fauna of the Old Red Sandstone, let us imagine three great platforms from which the sea has just retired, leaving them strewn over with its spoils,—chiefly fishes. These platforms represent the three great periods of the system ; and in each do we find the group specifically, and in several instances generically, distinct. In the upper or newer platform,—that immediately under the Coal Measures,—there occur several species of *Holoptychius*, all of them of smaller dimensions than the giant of the Carboniferous system, but, in proportion to their bulk and size, even *more* strongly armed. With the *Holoptychius* there was associated a fish of the same Coelacanth family, the *Bathriolepis*, and several curious fishes of what is known as the Dipterian family, such as the *Stagonolepis*<sup>1</sup> and *Glyptolepis*. It contains also at least three species of *Pterichthys*. One of these, the *Pterichthys major*, which occurs in the upper sandstones of Moray, is of greater size than any of the others its contemporaries, or than any of the older species ; as if, in at least point of bulk, the creature received its fullest development just when on the eve of passing away.<sup>2</sup>

<sup>1</sup> The *Stagonolepis* is now under examination as to whether it is to be ranked as fish or reptile. Sir R. Murchison mentions this in his last address to the Leeds British Association as still undetermined.—L. M.

<sup>2</sup> Associated with this large *Pterichthys* are now found not only the *Telerpeton Elginense*, a small tortoise, but footprints of larger reptiles, some only of greater size than the *Telerpeton*, others considered to approach more nearly in bulk and conformation to some of those of the succeeding eras. When I lately visited the Museum at Elgin, I was gratified by seeing sandstone slabs bearing the traces of each of these ; but I was told that the best specimens had been sent to London