The fossil remains of fishes rank in the first class of the "Medals of Creation," for they demonstrate the existence of numerous tribes of highly organized beings in the most ancient fossiliferous strata, and the continuance of the same type of organization, variously modified, through the entire series of subsequent deposits to the present time. Each geological formation contains peculiar groups of fossil fishes, distinguished by distinct modifications of structure. Thus, according to the data at present obtained, all the osseous fishes anterior to the Chalk, belong to genera which have no representatives among existing species; and they are characterised by rhomboidal scales covered with enamel.

The state of conservation in which the fossils of this class occur, appears to have depended on the relative delicacy or firmness of the original structures, and on the nature of the deposits in which the fishes were imbedded. Thus the fossil fishes of the early formations, which are characterised by their dense integument and enamelled scales, often present the entire forms of the originals; and generally, considerable portions of the connected scales, with the fin, and other appendages. While the specimens of later deposits, which contain a large proportion of species with delicate scales, more often display the mineralized osseous skeleton, than the dermal structure. Sedimentary strata, composed of mud or fine detritus, of whatever age, have been most favourable to the preservation of the entire forms; hence we