

resolved by an examination of their anatomical structure. The White-fish has a skeleton, and, moreover, a vertebral column, composed of firm bone. The Sturgeon, (Fig. 152,)



Fig. 152.

on the contrary, has no bone in the vertebral column, except the spines or apophyses of the vertebræ. The middle part, or body of the vertebra, is cartilaginous; the mouth is transverse, and underneath the head; and the caudal fin is unequally forked, while in the White-fish it is equally forked.

384. If, however, we observe the young White-fish just after it has issued from the egg, (Fig. 123,) the contrast will be less striking. At this period the vertebræ are cartilaginous, like those of the Sturgeon; its mouth, also, is transverse and inferior, and its tail undivided; at that period the White-fish and the Sturgeon are, therefore, much more alike. But this similarity is only transient; as the White-fish grows, its vertebræ become ossified, and its resemblance to the Sturgeon is comparatively slight. As the Sturgeon has no such transformation of the vertebræ, and is, in some sense, arrested in its development, while the White-fish undergoes subsequent transformation, we conclude that, compared with the White-fish, it is really inferior in rank.

385. This relative inferiority and superiority strikes us still more when we compare with our most perfect fishes (the Salmon, the Cod) some of those worm-like animals, so different from ordinary fishes that they were formerly placed among the worms. The Amphioxus, represented of its natural size, (Fig. 153,) not only



Fig. 153.