

or footless, to which the eels, and other serpentine fishes belong, some of which also have no pectorals.

The *caudal* or tail fin, which directs the locomotions of fishes as a rudder, and gives to them the chief part of their force and velocity, in the majority of real fishes is vertical, but in flat-fish, which have no natatory vesicle, it is horizontal, as it is likewise in the Cetaceans and Amphibians; in all these its motion is vertical.

The *dorsal* is also a powerful fin, consisting of spiny rays; in some tribes, as the perch, though wanting in others, it is sometimes divided into two or three fins. By its various undulations, and by the differently inclined planes which it presents to the water, this fin augments the means of fishes to move in any direction, and adds much to the speed with which those last named pursue their prey: it counterbalances the effect of the caudal fin in cross-currents; but if the animals could not depress it, it might occasionally destroy the equilibrium, and upset them.

The *anal* fin seems, in many fishes, intended as an antagonist to the dorsal, to prevent the above effect, and maintain the fish in its due position.

But fins were given to fishes not only to be the instruments of motion in their own element, but likewise in that of terrestrial animals; to some they were given to enable them, under particular circumstances, to vie with the birds in their aerial flights; to others, that like quadrupeds, they may undertake excursions upon *Terra firma*; and to a third description, amongst other means, to assist them in climbing the trees in quest of their food. Everybody knows that the pectoral fins of the different species of flying fishes are very long; that by them, when leaping out of the water to avoid the pursuit of their enemies, the bonito,* and other rapacious fishes, they are supported in the air for a short time;

* Scomber Pelamis.