

are more especially useful for steadying the body, are longest in those fishes which inhabit the most stormy seas. The most voracious tribes, which incessantly pursue their prey, are furnished with most powerful muscles, and possess the greatest means of rapid progression. On the other hand, many of the more pacific, and weaker species are studiously guarded by a dense and hard integument, serving as a shield against the attacks of enemies, and often armed with sharp points, which are sufficient to repel the most daring assailant. The *Balistes* is covered with scales of singular hardness, closely set together, and frequently having rough edges. The *Ostracion*, or trunk fish, instead of these scales, is provided with a kind of coat of mail, composed of osseous plates, curiously joined together, like a tessellated pavement, and reminding us of the arrangements we have seen adopted in the calcareous coverings of the echinida.

Some of the cartilaginous fishes are, in like manner, protected by calcareous plates, appended to the integuments. There is a row of plates of this kind, of a quadrangular shape, which passes along the middle of the back in the sturgeon: and the whole body of the *Ostracion*, or Trunk-fish, is covered with osseous scales. All these have no immediate relation to the skeleton, but are apparently remnants of inferior types, of which one of the prevailing characters is the external situation of the protecting organs.

*Diodons* and *Tetraodons* are remarkable for being provided with the means of suddenly assuming a globular form, by swallowing air, which, passing into the crop or first stomach, blows up the whole animal like a balloon. The abdominal region being thus rendered the lightest, the body turns over, the stomach becoming the uppermost part; and the fish floats upon its back, without having the power of directing itself during this state of forced distention. But it is while lying thus bloated and passive, at the mercy of the waves, that this animal is really most secure; for the numerous spines, with which the surface of the body is universally beset, are raised and erected by the stretching out of the skin, thus present-