

Ichthyodorulites are generally long, very slightly arched, terminating in a point at the extremity, and having the base, which was implanted in the flesh, much prolonged, being sometimes equal to one-third of the entire length, and deeply grooved. The surface is marked with strong longitudinal ridges, parallel with the anterior margin, which is rounded, and laterally compressed. The posterior edge, which is more or less flat, has, towards the base, two rows of sharp arched teeth which gradually approach each other, and blend into one line on the upper part of the ray. There are numerous species of this genus in the Oolite and Lias. I have found one species in the Chalk, and a few in the Wealden. The small Ray figured *Lign.* 127, fig. 3, is from Tilgate Forest, and displays the usual characters of these fossils. From specimens discovered in the Lias, associated with the teeth, it appears that the *Hybodus* had two dorsal fins, each furnished with rays, as in the recent Dog-fish.

The microscopic structure of these rays is stated by M. Agassiz to resemble that of the teeth: in some there is a pulp-cavity, which occupies the centre of the spine, and is surrounded by dentine, in which the calcigerous tubes radiate direct to the surface; the external enamel is a layer of dentine, in which the medullary canals are wanting.

In the strata below the Lias there are numerous Ichthyodorulites, some of a large size, belonging to cartilaginous fishes, chiefly of the Shark family, and