

he said, 'belong to the genus *Hybodus*, but the species are new, and the genus itself has a wide range. Here, however, is something more determinate. This scale belongs to the *Lepidotus minor*, or ichthyolite of the Weald, and one of the most characteristic fishes of the great fresh-water formation of Surrey and Kent.' The fossils on which the distinguished ichthyologist thus promptly, and, as it proved, correctly decided, had been collected by Dr. Malcolmson from the the Wealden outlier at Linksfield ; and the ichthyolite which he so specially singled out,—the *Lepidotus*,—seems to have been a fresh-water fish of the nearly extinct ganoid order, and more nearly akin to the *Lepidosteus* of the North American rivers and lakes than to any other fish that now exists. By much the greater number of its contemporaries in the deposit also belonged to lakes and rivers. Some of the limestone slabs are thickly covered over by fresh-water shells, of types very much akin to those which still occur in our pools and ditches, such as *Planorbis* and *Paludina*. It presents also beds of a fresh-water mussel akin to a mussel of the English Weald,—*Mytilus Lyellii* ; and it so abounds in the remains of those minute, one-eyed crustaceans known as the *Cyprides*, that the vast numbers of their egg-shaped shelly cases give to some of the beds a structure resembling the roe of a fish. It contains, too, bones of a species of tortoise, and several other decidedly fresh-water remains ; while another class of its organisms serve to show that it was occasionally visited by denizens of the sea. It has furnished specimens of bones and teeth of *Plesiosaurus*,—a marine reptile ; and some of the upper beds contain a small oyster ; while a class of its remains,—the teeth and huge dorsal spines of *Hybodonts*, an extinct family of sharks, though they may have been fitted to sustain life in brackish water, seem to indicate rather a sea than a lacustrine or river habitat. The deposit took place in all probability in the upper reaches of an estuary operated upon by the tides, and