Fishes.

The finny races of the sea and fresh waters amount to many thousand (perhaps 8000 or more) species; those yet recognised in a fossil state are about 800, or one tenth; but, since a few years ago the number known was very inconsiderable, and new forms are continually presented to M. Agassiz, the master of this department of fossil zoology, there is reason to suppose that the proportion of recent and fossil numbers will speedily change. One reason of the comparative paucity of fossil fishes may be their enormous destruction for food; thus they perish in greater proportion than the other inhabitants of the sea. In the present state of nature, we find very few fishes, or parts of fishes, in the mud of a drained pond, canal, or river; and it is only in particular parts of the sea that the sounding line brings up from the bottom sharks' teeth, hakes' teeth, &c. It is probable, therefore, that only a small proportion of the number of species of fishes, anciently existing, is now to be obtained from the rocks.

It is further to be observed, that the fleshy and ligamental substance of fishes decomposes more readily than the soft parts of many animals; their bones, teeth, scales, &c., are, for this reason, much scattered in certain rocks, which, like the sandstones of Sussex, and the forest marble of Wilts, appear to have undergone the littoral action of the sea. The circumstances under which the remains of fishes have been imbedded appear to have been various. In the upper part of the silurian system, a thin bed of fragmented fish bones occurs; a thicker bed of ichthyoid and sauroid bones has been long known in the lias of the Severn cliffs: considerable agitation accompanied the deposition of fish teeth in most of the oolites, wealden beds, greensand layers, &c. But in the tilestone of the old red sandstone, fishes lie in great perfection in Herefordshire and Brecon, as well as at Arbroath in Scotland; the amblypteri, holop-