

LIFE-HISTORIES OF FISHES.

The late Frank Buckland, two days before his death in December 1880, wrote: "We want to know the times and places of the spawning of sea fish. Where do the soles lay their eggs? When and how do the plaice, turbot, brill, halibut, &c., spawn?" Buckland, it is true, was not an exact scientific investigator: but he was an untiring enthusiast who turned to account every opportunity for obtaining knowledge about fishes. His queries show how little was known about the life-history of fishes, especially sea fishes, less than twenty years ago. But a great change has happily been accomplished and the issue of a handsome volume condensing existing knowledge upon this important subject by Dr. McIntosh, Professor of Natural History in St. Andrews University, Scotland, and Mr. A. T. Masterman, Assistant Professor in the same University, marks an epoch in Ichthyology. Printed at the Cambridge University Press, England, this book, entitled "British Marine Food-Fishes," is the most notable work published up to this time on the eggs and young of fishes. It is a handsome volume of 516 pages, with twenty beautiful plates, and a coloured frontispiece, and worthily summarises the results of researches during the last twenty years by scientific workers on both sides of the Atlantic.

Wide as the subject of fish-development is, the ground covered by the authors is wider still, and apart from the objection that some of the marine species described have only indirectly any economic importance, scientific readers generally will be very grateful for this, and for the comprehensive account given in Chapter III on pelagic fauna, *i.e.*, the succession of life, vertebrate and invertebrate, in the sea during the twelve months of the year. The important and interesting nature of the subject gives the book an unusual value but its numerous beautiful illustrations and lucid descriptions, it is a work that no zoologist