Mr. Fornander has also brought to light the evidences of an interesting series of movements which began in the Polynesian Islands about the commencement of the eleventh century of our era, and continued for two or three hundred years. During that period, as he shows us, "the folk-lore in all the principal groups becomes replete with the legends and songs of a number of remarkable men, of bold expeditions, stirring adventures, and vovages undertaken to far-off lands." For seven or eight generations the navigators of the leading groups, from the Sandwich Islands in the north to the Society group in the south, and from the Friendly Islands in the west to the Marquesas in the east, were accustomed to interchange visits, and to voyage freely to and fro, with far more assurance and better seamanship than were displayed by the early Greek and Italian sailors in the Mediterranean. Yet the distances thus traversed sometimes exceeded two thousand miles. and crossed both the north and the south tradewinds and the equatorial belt. These surprising feats of seamanship were performed by people who were still in the stone age, and so far back in that age, in the industrial sense, that they had not even arrived at the invention of pottery. Such facts show, that, in accounting for the movements of population in primitive times, mere distance and difficulties of navigation need hardly be taken into account.

The author has traced with much care the history of the Hawaiian people from the close of that era of unrest and adventure in the thirteenth century, down to the time, in the early part of the present century, when Kamehameha, with the help of foreign arms and auxiliaries, succeeded in uniting all the islands under one government. The whole of this portion of the work is of great interest. The industry and judgment displayed in collecting and sifting evidence secure the reader's confidence. The details which are given concerning the primitive customs and social arrangements of the people have much ethnological value. In passing from this section of the work to that in which the author sets forth his views respecting the origin and affiliations of the Polynesian race, a serious disappointment is experienced. The undoubted success achieved in dealing with the native traditions and other local matters, which were familiar to the writer, deserts him when he ventures into this wider and less-known field. The student of philology, however, will be able to extract even from this portion something that will be useful Ethnologists, while they will find the to him. author's archeological theories and his peculiar etymologies fanciful and unsatisfying, will not allow these minor defects to blind them to the

great and indeed unique value of his work as a treasury of local traditions and customs and a trustworthy historical record.

## PACKARD'S FIRST LESSONS IN ZOÖLOGY.

THIS is an abridgment of the larger works by the same author, and is intended for the use of beginners. It contains about two hundred and ninety pages, including glossary and index. It differs from the larger works in the same series in treating of fewer forms, containing much less anatomy, and the general, by no means entire, omission of the embryonic development of the different groups. The general plan of the book, and allotment of space to the different types and classes, is good, although some important groups have been, perhaps necessarily, slighted. Thus only four pages are devoted to vermes. There is the same lack of clearness and exactness in definition so characteristic of the larger text-books in the same series. Thus the definition of 'Coelenterata' contains no reference to the radiate structure of the animals, to tentacles or thread-cells, or to the use of the same cavity for digestion and circulation. Most of these points have indeed been noticed in the general description, but, in summing up the essential characteristics of the type, they are all omitted. The same definition, too, leads us to infer that all Coelenterata pass through a medusoid stage. The definition of 'echinoderms' is hardly more accurate. Those of the higher types are somewhat better, sometimes good. The forty pages devoted to insects are the best part of the book. Each order has its special chapter, in which some important species is described as fully as the size of the book will allow. Any boy or girl who has studied these chapters thoroughly will not only have some knowledge of them, but, what is far more important, will certainly have a new interest in them and a stronger desire to study the different species and find out their habits. The style is clear, and the subjects made interesting. The student's mind is not confused by a mass of details, or by unsatisfactory descriptions of a large number of specimens which he can never expect to see, much less examine ; but the brief sketches of a few of the most important forms will awaken in him a desire for wider knowledge. The figures are numerous, averaging almost one to each page; yet they are so well selected, that, while one grudges so much space, he finds few which he would omit. They are clear and well executed.

First lessons in zoölogy. By A. S. PACKARD. New York, Holt, 1886. 12°.