

theme, and uses it conveniently as a possible explanation of certain obscure phenomena which require a great deal of further investigation.

Apart from the few criticisms which we have made, the book gives an admirable elementary presentation of its subject-matter, and may confidently be recommended to every student of psychology.

ALFRED CARVER.

Torres Strait and its Echinoderms.

Department of Marine Biology of the Carnegie Institution of Washington. Vol. x., The Echinoderm Fauna of Torres Strait. By Hubert Lyman Clark. (Publication No. 214.) Pp. viii + 223 + 38 plates. (Washington, D.C.: The Carnegie Institution of Washington, 1921.) 15.50 dollars.

ONE result of an expedition to Torres Strait organised by the Carnegie Institution of Washington in 1913 has been that the department of marine biology of that institution has published an admirable memoir on the Echinoderm fauna by Dr. H. Lyman Clark. The 240 species there found are critically examined, as well as fifty species from adjacent regions. Notes on the habitat and habits are furnished in many cases. Forty-one new species were discovered, and some are here described for the first time; many of these and others are illustrated by photographs, and a number are represented in their natural colours from drawings by Mr. E. M. Grosse, of Sydney, on nineteen exquisite plates lithographed by Mr. H. S. Burton at the Government Printing Office of New South Wales. The technical and artistic skill here displayed do justice to the extreme beauty of the objects.

The chief interest of the memoir lies in the light that Dr. Clark's careful analysis of the Echinoderm assemblage sheds on the geographical changes which led to the formation of Torres Strait. C. Hedley's hypothesis of a Queensland gulf in Mesozoic times receives no support from the echinoderms. "What may be called the original echinoderm fauna was, in Dr. Clark's opinion, on the north-west side of the present continent, and was of East Indian origin and Indo-Pacific composition. On the other hand, confirmation is afforded for Hedley's view that, as land areas east of New Guinea subsided, the Coral sea became connected with the Pacific; its western shores also receded until the Great Barrier Reef was formed. This sea was invaded by echinoderms from the Pacific, and these now compose the distinctive fauna of the Barrier Reef and the Murray Islands, and to some extent that of southern Queensland and New South Wales.

NO. 2701, VOL. 107]

Continued subsidence on both sides led at last to the formation of Torres Strait, and the East Indian echinoderms then migrated eastward and southward to the Queensland coast and Barrier Reef, where they mingled with the Pacific immigrants. The latter, however, have not passed westwards through the Strait.

The echinoderms on which these conclusions are based, though representing all the living classes, are confined to those from shore-waters, and the argument postulates that their migration must follow the shifting of the coasts, and cannot be greatly affected by the dispersal of pelagic larvæ through currents. The actual facts of the distribution are certainly more consistent with this assumption than with the opposite opinion of Mr. Jeffrey Bell. Dr. Clark has used, and used with masterly skill, the facts at his disposal; but over and over again he has to deplore the incompleteness of our knowledge. Some areas are still untouched by the collector; for instance, the Gulf of Carpentaria, in the very heart of the region under discussion, and the southern coast of New Guinea just to the north of it. From other important areas we have but the chance dredgings of a few cruises, and even where a more careful search has been made it has been restricted to a brief period; of the seasonal changes nothing is known beyond the fact of their occurrence. What rich harvest may follow from more extended exploration and more intensive study of selected areas is abundantly indicated by Dr. Clark's learned and suggestive survey.

F. A. B.

Our Bookshelf.

From the Unconscious to the Conscious. By Gustave Geley. Translated by Stanley de Brath. Pp. xxviii + 328. (London: William Collins, Sons, and Co., Ltd., 1920.) 17s. 6d. net.

THERE is a well-known fact of biology called the histolysis of the insect, which was first investigated by Weissmann in 1864. When the insect has completed its larval stage and enters into the pupal stage, its tissues disappear, leaving none of their former cellular elements; all are converted into an apparently homogeneous mass, out of which the imago is generated *de novo*.

There is a lady, known in mediumistic circles as "Eva," of rather unprepossessing appearance, to judge by her photographs, who possesses a power of what is called materialisation. She is by no means unique in the possession of this faculty, but she has been trained, we are told, to give the most perfect exhibition of it which has yet been known. At great personal discomfort, often apparently involving actual pain, under the