

*Zoological Results based on Material from New Britain, New Guinea, Loyalty Islands and elsewhere, collected during the years 1865, 1896 and 1897, by Arthur Willey.* Cambridge, Eng., the University Press. 4to. Part V. December, 1900. Pp. 531-690; pls. LIV.-LXXIV.

The fifth installment of Dr. Willey's 'Zoological Results' contains six papers, one of which deals with cœlenterates, two with worms, two with crustaceans, and one with vertebrates. The first of these is by E. M. Pratt who describes the soft parts of the rare coral *Neohelia porcellana*. This species, which was previously known only from material obtained by the *Challenger*, belongs to the Oculinidæ, and as all its nearest relatives are fossils the importance of supplementing the earlier description of Moseley by a full account of its anatomy as given in the present paper is obvious.

The parasitic worms gathered by Dr. Willey were studied by A. E. Shipley who found that the collection contained seventeen species, nine of which were new. Two were trematodes and of these sufficient material was obtained of *Monostomum trigonocephalum* to enable Shipley to give a very full description of the anatomy of this form. Of the seven species of tapeworms six were new; two of minute size were taken from the intestine of a ray, one each from the digestive tract of a lizard, a snake, a fruit-eating pigeon and an albatross. Of the six species of round worms only one was new. Two specimens, however, were particularly interesting because of new light thrown on their geographical distribution. *Physaloptera obtusissima* had previously been recorded only from South American snakes, but apparently it also infests the native snakes of New Britain, and *P. retusa*, previously found only in Brazilian lizards, is now for the first time recorded from New Britain. A new species of *Gordius* and a new representative of the family Linguatulidæ are described.

The nemertines are reported upon by R. C. Punnett. Six of the twelve species collected were new. Five belong to the genus *Eupolia* whose headquarters seems to be the Malay archipelago. A new species, *Carinesta orientalis*, on the other hand, is the first Protonemertine

to be recorded from regions outside the Atlantic and Mediterranean.

The extensive collection of lower crustaceans contains, according to T. R. R. Stebbing, forty-six species, of which twenty-three are new. Eight of these represent new genera. Of special interest is *Panaetis incamerata*, a semi-parasitic copepod occurring in the pallial chamber of gastropods, and *Anchicaligus nautili*, a parasitic copepod infesting the mantle chamber of *Nautilus pompilius* and certain slimy portions of the shell of *N. macromphalus*.

The young of the robber crab, *Birgus latro*, have been made the subject of a short but interesting report by L. A. Borradaile. The adult robber crabs are land animals living some distance from the coast and, according to report, have been supposed to bring forth young resembling the parent. Thus it has been surmised that their development was without the larval metamorphosis usually characteristic of other crustaceans. Direct evidence of this has been wanting, for accurate observers have not heretofore happened on the crabs in the breeding season. Dr. Willey, however, reports the capture close to the sea of females with large masses of brown eggs attached to their abdominal appendages. An examination of this material showed that the young hatched as in allied species, in the zœa stage. When hatching begins the females presumably shake the young off in the water. The further development of *Birgus* is without doubt accompanied by a metamorphosis as in other hermit crabs.

G. A. Boulenger describes a new blind snake, *Typhlops willeyi*, from the island of Lifu. This is of interest since it is only the second species of land snake recorded from this island.

G. H. PARKER.

*Ergebnisse der neueren Sporozoenforschung.* M. LÜHE. Jena, Gustav Fischer. Price, 2 M. 80.

Lühe's summary of the results of more recent investigations on Sporozoa is practically a revised reprint of his articles which recently appeared in the *Centralblatt für Bakteriologie, Parasitenkunde und Infektionskrankheiten*, Volumes XXVII. and XXVIII., and represents a summary of the zoological data contained in nu-