

PALÆONTOLOGICAL WORK.

The following is a synopsis of the work done by Dr. J. Marwick, Palæontologist, during the year: Collections were made in the neighbourhood of Wanganui and along the coast to Nukumarū, also at several localities in north Otago. The numerous specimens gathered will be of service not only for the study of the fossil faunas of New Zealand, but also as a means of procuring by exchange collections of fossils from other countries. Among the fossils collected by field parties, perhaps the most interesting are those from Clinton. They include examples of *Chonetes* and *Zaphrentis*, which show that the enclosing rocks are of Upper Palæozoic age—that is, either Permian or Carboniferous. The underlying Otago schists must therefore be at least pre-Permian, and are probably very much older. Several trilobites collected in the Collingwood and Wangapeka districts were submitted to Dr. F. R. Cowper Reed, of Cambridge, who considers them to be of Lower Ordovician and Ordovician age respectively. The graptolites found in the Mount Arthur district will, it is hoped, provide equally useful evidence of the age of the containing strata.

The classification of Tertiary Mollusca was proceeded with, and several papers were submitted for publication in the "Transactions of the New Zealand Institute" and the *New Zealand Journal of Science and Technology*.

PUBLICATIONS AND REPORTS.

During the year the following official publications were issued:—

"Eighteenth Annual Report (New Series) of the Geological Survey" (parliamentary paper C.—2c, 1923).

Geological Bulletin No. 26, "The Geology and Mines of the Waihi District, Hauraki Goldfield, New Zealand," by P. G. Morgan.

Several palæontological papers by Dr. J. Marwick appear in Volume 55 of the "Transactions of the New Zealand Institute." These are: "The Struthiolariidæ," "Palæontological Notes on some Pliocene Mollusca from Hawke's Bay," and "The Tertiary and Recent Naticidæ and Naricidæ of New Zealand." The following articles in the same volume describe fossil material partly or wholly collected by the New Zealand Geological Survey: "*Lahillia* and some other Fossils from the Upper Senonian of New Zealand," by Otto Wilckens (Bonn); "A New Fossil Gasteropod from New Zealand," by A. E. Trueman (Swansea); "Otoliths of Fishes from the Tertiary Formations of New Zealand," by G. A. Frost (London).

Various other papers or articles by members of the staff have appeared in the *New Zealand Journal of Science and Technology* or elsewhere, but do not call for further mention here.

The manuscripts of the following bulletins are in the hands of the printer:—

"The Geology of the Whangarei-Bay of Islands Subdivision," by H. T. Ferrar and others (J. A. Bartrum, W. H. Cropp).

"The Geology of the Huntly-Kawhia Subdivision, Pirongia Division," by J. Henderson and L. I. Grange.

"The Cretaceous and Tertiary Foraminifera of New Zealand, with an Appendix on the Ostracoda," by Frederick Chapman.

"Contributions to the Palæontology of the New Zealand Trias," by Otto Wilckens.

OFFICE-WORK, ETC.

The preparation and revision of the various detailed reports already mentioned occupied the various professional members of the Geological Survey staff during the whole of the winter months. All through the year much of my time has been taken up with similar work. Numerous requests for information connected with the work of the survey have been answered, and many samples of rocks, minerals, &c., have been examined and identified.

The draughting staff has drawn eleven maps, each covering one or more survey districts, for photo-lithographic reproduction, as well as a large scale map of the Greymouth Coalfield, and forty-four field-sheets. In addition a good deal of miscellaneous work has been performed.

The library has received the usual attention, and several hundred volumes, mostly received in exchange for the Survey's publications, have been placed on the shelves, now much overcrowded. Though incomplete in some respects, the library is invaluable for reference purposes.