

The Critical List of the New Zealand Mollusca by Dr. Von Marten, and also the Descriptive Catalogue of the Land Shells by Dr. Cox, have been published. Attention has also to be directed to the valuable lists of all the New Zealand Insects described up to 1870, prepared by Captain Hutton and Mr. R. W. Fereday, which have been published in the Transactions of the New Zealand Institute, Vol. VI., which also contains the Rev. O. P. Cambridge's introduction to the study of the Spiders of this country, and a Descriptive List of the Neuropterous Insects of New Zealand by Mr. R. McLachlan.

Palæontology.—Very large additions have been made to the collection of Fossils, both from sections formerly examined and from new localities and formations. Chief among these are the richly fossiliferous limestones and quartzites of lower Devonian or upper Silurian age, which underlie unconformably the auriferous rocks of Reefton, and from which over 2,000 specimens have been obtained. As this formation enters largely into the structure of the highly mineralized N.W. district of the South Island, the establishment of an easily recognized zone is most advantageous to the geology of the colony.

The interesting character of the small collection of fossils formerly obtained from the south-east district of Otago, indicating the probable existence of a passage group from lower mesozoic to palæozoic, suggested the importance of having further collections made from the sections afforded in the vicinity of Nugget Point and Catlin's River. For this work Mr. McKay, who conducted the excavations for saurian remains at Amuri Bluff so successfully, was selected; and in the course of three months he obtained nearly 3,000 fossils, which are as yet only partially worked out, but they serve to prove the existence in that district of a range of formations from lower jurassic to upper carboniferous.

A comparison of the upper coal formations on the east side of the South Island with those on the West Coast, and of more ample collections of fossils from the overlying formations, has shown that the bituminous coal seams on the West occur in a lower part of the formation that carries the brown or hydrous coal seams on both sides of the Island, and that the whole, together with an immense thickness of overlying marine formation, must be referred to the cretaceous period. This view has been further established by a survey of the East Cape District of the North Island, and the general results obtained will also require a revision of the present classification of the lower tertiary strata, as the evidence and re-establishment of a cretaceo-tertiary formation having for its upper member a representative of the nummulite limestone.

A special geological survey of the East Cape District of the North Island was made, to investigate the source of the petroleum which springs from the surface of the ground in many localities. This survey is not yet complete, but the information obtained indicates that the mineral oil is derived from bituminous shales of upper jurassic age.

The particulars of the various geological operations in the field will appear in a volume of Report of the Geological Survey; and it may be mentioned that the general geological map of the colony that was sent to the Vienna Exhibition is now in course of publication in Europe.

LABORATORY.

The number of analyses made during the past year was 356, viz.,—35 coals, 77 minerals, 37 ores, 10 waters, 31 gold assays, and 166 miscellaneous.

The particulars of these analyses will be found in the usual Annual Report by the Analyst.

JAMES HECTOR.

ACCOUNTS OF THE NEW ZEALAND INSTITUTE for 1873-74.

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Balance in hand, August, 1873	...	181	13 3	Expense of Printing Volume VI.	...	520	11 0
Vote for 1873-74	...	500	0 0	Miscellaneous—Binding, Advertising, &c.	...	2	1 6
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A. LUDLAM, Treasurer.

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