

This paper, which has been published in full by the Geological Department, ("Palæontology of New Zealand," Part IV., 1880.) gives the results of an examination of a large series of fossils belonging to this class, exhibited in the New Zealand court at Sydney Exhibition by the Geological Department, and was illustrated by a beautiful series of drawings made by the author. Three genera and thirty species were described as new to science.

Dr. Hector pointed out this investigation confirmed the view that during tertiary times the climate of New Zealand had not been much different from that at present prevailing, if anything it was a little warmer, and was quite opposed to the idea of a glacial period having affected these latitudes. It also confirmed the classification he had adopted in placing the Oamaru beds as upper eocene, and equivalent to the Mount Gambier beds in Australia, and Table Cape beds of Tasmania.

3. "On certain Minerals collected during the past Year by the Geological Survey Staff," by S. H. Cox, F.G.S.

ABSTRACT.

Specimens were exhibited and described, some of which were of considerable value and interest. Among them the following were announced as having been found in New Zealand for the first time:—Crome mica, and *hauerite*, or sulphide of manganese. Both these minerals were collected by Mr. McKay in the highly mineralized district lying to the N.W. of Otago, where he also found lodes containing specular iron, *pyrrhotine* or magnetic pyrites containing nickel, *mispickel* or arsenical pyrites containing gold, and *scheelite* or tungstate of lime, the latter having only been found as rolled fragments hitherto. Several new discoveries of copper ore were also announced, among which was occurrence of metallic copper in the basaltic rocks at the Manukau Heads, Auckland. Also the occurrence in the trachytic dyke rocks at Tokatoka, Kaipara, of the zeolites, natrolite, and stilbite.

MR. Dr. Hector exhibited and explained a copy of the geological map of New Zealand, which he had prepared for the Melbourne Exhibition, giving a particular account of the country geologically examined during the past year, and said that few were aware of the amount of labour and great hardships that had to be undergone in carrying on the survey in the more remote parts of the country. He gave a brief account of the progress of the geological survey from its commencement, and showed that by degrees we have attained a tolerably correct idea of the general structure of the whole country. There is still, however, a great deal to be done towards the accurate mapping of the formations, and particularly tracing those strata which indicate the presence of deep-seated coal seams, and the high level auriferous cements to which he had referred at the last meeting.

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FOURTH MEETING. 14th August, 1880.

Mr. CHAPMAN, President, in the Chair.

New Member.—Mr. John Ralph Rees, M.I.C.E.

On the "Colour-Sense," by Dr. G. Gillon.

This was a lecture on the gradual development of the Colour-Sense in the Animal Kingdom, and the corresponding evolution of the chromatic characters characteristic of species of animals and plants.

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