

another much smaller one in his son's collection; and it seemed to him that this was just one of those groups which ought to be worked out on the spot. It was an endemic group of Orthoptera, being entirely restricted to New Zealand, and did not therefore call for comparison with forms inhabiting other countries and not readily accessible to collectors here. It was, of course, possible that we might make mistakes in discriminating new genera and species; but, on the other hand, specimens sent to our great centres of learning did not always receive the attention we looked for. He might mention that in 1886 he found in a cave at Rotorua a beautifully-banded species of *Macropathus*, which he believed to be new. He took to England with him a bottle full of specimens in spirits, and sent them to one of the museums, where there was a specialist for such work, hoping to have the species named and described. But to this day, so far as he could learn, the stopper had remained in the bottle, and he would probably have to investigate the subject for himself on his next visit to Europe.

Sir James Hector exhibited some fine specimens of British and New Zealand birds, mounted by Mr. Yuill; and Mr. Hudson exhibited specimens of the weta to compare with those submitted by Sir W. Buller.

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NINTH MEETING: 17th October, 1894.

Major-General Schaw, President, in the chair.

*Papers.*—1. "On some Peculiar Cases of the Reflection of Light," by Major-General Schaw, C.B., R.E. (*Transactions*, p. 535.)

2. "On a Peculiar Appearance in a Cloud during the Daylight," by A. J. Lichfield.

ABSTRACT.

The author described an iridescent cloud from which the spectrum rays were diffused, and not arranged as in a rainbow. The sky was clear, with passing clouds, but no other cloud presented the same phenomenon.

Sir J. Hector considered the President's paper most interesting; and such accurate observations were of great use. With regard to the light in the cloud, it might have been caused by ice, it might have been an electrified cloud discharging hail, or it was possibly due to smoke in the atmosphere from a bush fire.

Mr. Tregear had observed similar lights in clouds, but could not account for it.

The President thought it must have been produced by ice, and that it was a portion of a halo formed where a frozen cloud was in the position required to produce the effect.

3. "A Synoptical List of Coccids reported from Australasia and the Pacific Islands up to December, 1894," by W. M. Maskell. (*Transactions*, p. 1.)

The author read extracts from the paper, and made some remarks upon the manner in which new species were made. He said that the majority of scientific workers were more anxious to have their names attached to specimens than to apply themselves to any real work of the

study itself; the very slightest variation seemed sufficient to induce them to make a new species. But with the Coccids they had been careful in this respect, and hence the few new species: they required an organic character, and not a mere colour. It was a question as to how far we were warranted in making long lists of species on small, trivial, and external characters.

Mr. Hudson was sorry Sir W. Buller was not present, as he would more fully answer Mr. Maskell on this subject. What applied to Coccids did not apply to other insects; each case should be judged on its merits. If colour and other characters are constant, then we must accept them as sufficient.

Sir J. Hector said that Mr. Maskell's list would be most valuable, as it would contain all the known species of Coccids up to date, with remarks and information that will be most useful to farmers and fruit-growers.

The President also said the list would be of the greatest use.

4. "On Baryte: a Rare Form," by Sir J. Hector.

This specimen was handed to Sir J. Hector by Major-General Schaw. It is a nodular variety, known as "Bologna stone," and is composed of sulphate of baryta, or heavy spar. It commonly occurs in differently-formed crystals, and is used as a substitute for white-lead, and also in sugar-refining. This particular form is remarkable for its brilliant phosphorescence after heating with charcoal. Bologna phosphorus was made by powdering this material and cementing the powder with gum. The locality is the glauconitic marls, inland of Akiteo.

5. "Pélé's Hair (Volcanic Glass-fibre)," by Sir J. Hector.

The sample exhibited by Sir J. Hector was forwarded by the Customs Department, and was taken from a box that was cast up on the north-west side of Portland Island. The box was found by Mr. C. H. O. Robson, the lighthouse-keeper, on the 9th September. It was strongly made of 2in. pitch-pine boards, without any marks. It contained a mass of the fibrous variety of volcanic glass known as Pélé's hair, packed in charcoal, in which were a charred cotton-reel and fragments of bamboo.

Pélé is the Hawaiian name for the goddess that presides over Kilauea, the great volcano of the Sandwich Islands. The hair is formed by the action of the wind on the jets of very fluid lava or volcanic glass, which it blows to leeward in delicate films, each weighted by a little spherical globule of the glass. The films accumulate to leeward of the pool in great masses, like mown grass, and lie all pointing in the same direction.

6. "On the Occurrence of a Mineral Belt in the Heart of the great Schist-formation of Otago," by Sir J. Hector.

The author exhibited a large series of specimens of serpentine, asbestos, and other magnesian rocks from the south end