greatly disturbed during the last aurora, and on one occasion the instruments worked without the batteries while an aurora was taking place.

Mr. Maskell said one practical point not referred to is whether the climate is affected by these disturbances. In Canterbury, in 1870 and 1882, after auroras, the summers were much wetter than usual. In 1867–68–69 the summers were so dry that the crops were ruined, and we had no auroras. In fact, wet weather generally follows auroras. It is possible that the electrical disturbances may have an effect on the climate, and it would be worth while to take notice of this.

Sir Walter Buller said that in 1857 he saw an aurora in the Wairarapa. It was of a most brilliant crimson colour. He sent a description of it to the *Independent*, and would look it up.

Mr. Hulke said that in the Northern Hemisphere it is sometimes so red as to resemble fire. Now that we have telegraphic communication we can connect the appearance of sun-spots with auroras. He described how, with a simple telescope, sun-spots could easily be observed.

Mr. Hudson, in reply, said he was glad his short notes had been the means of getting so much interesting information from Sir James Hector.

Sir James Hector, in reply, said that sun-spots had been associated with the growing of wheat, so that if auroras are affected by sun-spots they must also affect the climate. He had also observed an aurora in the Rocky Mountains in America in 1857. He thought it was better to give any information he possessed on the same night as Mr. Hudson read his notes, so that all the facts should be together.

2. Ornithological Notes, by Sir W. L. Buller: (1.) On *Phalacrocorax colensoi*, of the Auckland Islands, and *P. onslowi*, of the Chatham Islands. (2.) *Œstrelata neglecta*. (*Transactions*, pp. 129, 132.)

Exhibits:

Sir Walter Buller exhibited a newly-hatched tuatara lizard (*Sphenodon punctatum*) which he had received from Captain Fairchild. He had been for years trying to obtain this young form for the British Museum, and, being of extreme rarity, he thought it would be interesting to exhibit it here before sending it Home. He explained that, some eggs of the tuatara having been taken into the lighthouse-keeper's house on Stephen's Island, the heat of the room hatched them out. The specimen exhibited, being one of these, was about a week old when placed in the bottle of spirits.

Sir W. Buller exhibited, and made remarks on, Mr. Salvini's new petrel from the Kermadec Islands (*Œstrelata nigripennis*). The bird is very similar to *Œ. cookii*, with which it had hitherto been confounded.

Mr. Maskell would like to know what Sir Walter Buller intended doing with the other three young tuataras. He thought it would have been better had Sir W. Buller given his first specimen to the Colonial Museum, and after that considered the Home museums. He thought we should have the first of everything in our own collections. The captain of the Government steamer should have first supplied the Government museum before he disposed of any to private collectors. Since the late storm two strange birds had appeared in our harbour: one a sort of gannet, and the other with long tail and wings. They were beautiful birds, and seemed quite tame. Could Sir W. Buller tell us what they are, and where they come from?

Mr. Tanner had also observed these birds, and would be glad to hear something about them.

Sir James Hector did not think the young of the tuatara was so scarce as was supposed. Professor Thomas, of Auckland, had obtained some eggs, and had hatched them out. He would be very glad to get one for the Museum. It would be interesting to ascertain the condition of the obsolete eye in this lizard in the early stage of its existence.

Sir Walter Buller, in reply, said he recognized the first claim of the local institutions, but in some cases it was better to send objects Home to specialists, who had better opportunities of working them out. In this country we are often placed at a great disadvantage through not having the necessary books of reference and collections for comparison. He acknowledged and admired the industry with which Sir J. Hector and other workers applied themselves to original research, but as a rule there was too much material for the limited number of workers. Take, for example, the case of the adult tuatara. We had been collecting and studying this lizard for years; but it remained for Professor Moseley, of Oxford, to make the extraordinary discovery of its possessing a third and obsolete eye at the top of its head. The birds referred to by Mr. Maskell were the gannet (*Dysporus serrator*), very similar to the English species, but easily distinguished by the black feathers in the tail; and the common tern, or sea-swallow (*Sterna frontalis*). Their appearance in the harbour was due to the long-continued storms on the coast, where both are very plentiful. He mentioned several breeding-places where they are met in countless numbers. Mr. Maskell had expressed a hope that they would remain with us, as their evolutions on the wing were most interesting to watch; but this was quite impossible. They would disappear with a change of weather as suddenly as they had come. As he happened to have another young tuatara hatched out at the same time, he would send that to the British Museum, and present the specimen now on the table to Sir James Hector for the Colonial Museum.

A large and handsome collection of insects lately deposited in the Museum were exhibited. It had been made and arranged by Mr. Norris.

Mr. Hudson said this was a very fine collection, and Mr. Norris deserved much praise for his great industry. There were several valuable specimens in the collection, especially the glow-worms, the large green moth, &c., and the examples illustrating the life-history of white and black moths. Until more interest is taken in science in New Zealand, collectors will be disposed to send their collections to England and other places where they will attract more attention.

Sir James Hector said he would like to get a list of the fine collection now exhibited, with a view to publication; and Mr. Norris promised to supply this. All the specimens had been obtained in the neighbourhood of Tinakori Road and the Botanic Gardens.

Eighth Meeting: *9th September, 1894.*

Major-General Schaw, President, in the chair.

Before the meeting commenced, Sir James Hector, on behalf of the members, congratulated General Schaw on his return to the chair after his long illness; and General Schaw thanked those present for their kind expressions.

The President, before proceeding with the ordinary business of the meeting, read an extract from an article in the *Royal Engineer*

Journal of the 1st August, 1894, as follows: "A most remarkable and valuable calculation has been achieved by a competent, unprejudiced, and distinguished investigator as to the accuracy of Major-General Drayson's discovery, described in previous issues of the *Journal*. Admiral De Horsey took the recorded positions of a star, found by observation at various dates, and calculated by geometry the position of the pole of second rotation, the annual movement of the pole of the heavens, the position of the pole of the ecliptic, the decrease in the obliquity at various dates, the period during which an entire revolution of the equinoxes would occur, the amount of extension of the arctic circle during this revolution, and other items of very great importance. The results obtained by this original process differ only $\frac{1}{3}$rd of a minute of arc in two cases, and only $\frac{1}{400}$th of a second and $\frac{1}{160}$th of a second in other cases, from the results given by Major-General Drayson." The President observed that, so far as he was aware, this was the only real criticism of Major-General Drayson's discovery which had yet been made, and it was gratifying to learn that this searching mathematical criticism so perfectly confirmed the discovery, and its astronomical and geological consequences, which he had the honour of bringing to the notice of the Society.

New Member.—Mr. Percy E. Baldwin.

Papers.—1. "Myths of Observation," by E. Tregear, F.R.G.S. (*Transactions*, p. 579.)

Sir James Hector thought the paper very interesting, and deserving of thoughtful consideration. At the same time we must be careful, in interpreting such traditional myths, not to strain observed facts. Evidences of former great changes wrought by ice, water, and fire are found in all parts of the world; but there is no evidence that the action of these agencies was simultaneously exercised over distant areas. Even during the last year we have had evidence of local deluges and local fires, local volcanic outbursts, and local excesses of cold, all of which might have originated myths among savages; but these would not universally apply, although they might spread even among nations that had not experienced the phenomena that gave rise to them, nor is there any proof that the similar myths referred to the same events, or to universal catastrophes. He also protested against mixing up widely-distant geological epochs, such as the extension of a Cretaceous and Miocene temperate flora into the arctic circle, with the Pliocene glacial extinction of the mammoth and the origin of myths in the human period, these having been events separated by vast periods of time.

Mr. Maskell said it was difficult to discuss a large question like this without carefully reading the paper; but he had very little sympathy with what Mr. Tregear had said. We should think more of facts than of theories. He should not like to see this paper in the Transactions, because it is not original; everybody has read it over and over again, and the deductions have all been given in various works. Professor Sayce was called by Mr. Tregear "the champion of orthodoxy," and it is unfortunate that such sneering allusions should be made in a professedly scientific paper.

General Schaw said that, as Mr. Tregear had alluded to the mammoths preserved in foreign mud in Siberia, as indicating a more sudden change of climate than would have resulted from the second rotation of the earth described in his (the President's) inaugural address, he felt called upon to make some observations on the subject. It must be noted that an increased obliquity of the axis of the earth's diurnal rotation to the plane of the ecliptic would not only have caused an arctic winter to extend further towards the equator, but also would have increased the