

locality, which he placed in the Oligocene period, Dr. Marshall said that from a preliminary cursory examination he had been led to believe that all the leaves whose impressions are to be found in the bed would prove to belong to a species of plants still quite common in New Zealand, but a closer inspection showed that in nearly every case they were utterly different from the plants at present growing in New Zealand soil. For the most part, the leaves belonged apparently to a species of oak, elm, birch, or beech. There were several kinds of beech-trees here, but the fossil leaves differed more from those of the present New Zealand beech-trees than they did from the beech-trees of England, and they indicated a very close alliance with the flora of England. There were leaves also which represented the remains of *Magnolia*. The *Magnolia* was a plant which had entirely disappeared from the flora of Australia and New Zealand, and was now characteristic of North America and Asia. Two leaves certainly represented a species of rata very closely allied to the large rata of the North Island. It would be known, the speaker continued, by those who paid any attention to the classification of fossil flora that Baron Von Ettingshausen considered that in all parts of the globe the Eocene and early Tertiary flora contained an assemblage of species indicating a generalised flora. Towards the close of the Tertiary age he supposed that one section of the flora—the principal element—became dominant, while the other forms sunk to co-elements. He considered that climatic variations and changes must be held to account for the dominance of the principal element in any country. An exact determination of the flora in such a deposit as that of the Kaikorai Valley would enable one to judge of the nature of the climatic changes that in New Zealand had induced the dominance of such a peculiar "principal element" as now characterized our flora. So far as the present leaf-bed can be used in this connection, it appeared that, although the climate during the deposition of these leaf-beds was, on the whole, probably a little milder than the present climate, a subsequent increase in temperature took place, securing the preservation of such forms as *Piper* and *Metrosideros*, while the oaks, elms, beeches, &c., became extinct. It was to be hoped that a fuller description of the flora would be afterwards given, with, if it were deemed advisable, the greater definiteness that was gained from specific identifications and specific descriptions. At present it was interesting to note the presence of *Magnolia* and *Metrosideros* and *Piper* in our Tertiary flora.

Mr. Malcolm Thomson, M.A., read an account of a new species of Annelid (*Polynoe comma*) from New Zealand waters. (*Transactions*, p. 241.)

It lives as a commensal in the tube of a Terebellid.

Professor Benham read a paper on the "Osteology and other Parts of *Cogia breviceps*" (*Transactions*, p. 155), and exhibited a number of ethnological specimens from Malekula, New Hebrides, recently acquired by the Museum.

ANNUAL MEETING: 12th November, 1901.

Mr. G. M. Thomson, President, in the chair.

*New Member*.—Mr. George Howes, F.E.S.

On the motion of the Chairman, the following resolution was affirmed: "That the Otago Institute become registered under 'The Unclassified Societies Act, 1895.'"