

purchase; the skull of the male *Dolichodon layardii*, presented by Dr. Muller, of Blenheim; and a collection of marsupiate animals from Kawau Island, presented by Sir George Grey.

Birds.—The chief additions in this branch are a black skylark (*Alauda arvensis*), presented by Mr. George Hall; a fawn-coloured variety of the Native pigeon, *Carpophaga novæ zealandiæ*, by Mr. Wise; a male lyre bird (*Menura superba*); and two specimens of the shy albatross, obtained by purchase. Dr. Buller records the first occurrence of this latter bird on the New Zealand coast in a paper in the Transactions of the New Zealand Institute, Vol. X., p. 217 (1877). The collections under this section have increased very considerably, but cannot be fairly represented until further space is provided.

Reptilia.—Several fine specimens of the Tuatara lizard (*Sphenodon punctatum*) have been received from Captain Fairchild, who obtained them near Tauranga. A number of specimens of the more common kind of lizard have also been received.

Fishes.—Although not many additions have been made to this class, some interesting specimens have been received—viz., *Trachichthys trailli*, collected by Mr. McKay, of the department; *Argentina decagon*, the type of Mr. Clark's new species; and *Tripterygium jenningsii*, *Notothenia parva*, new species from the Auckland Islands, described by Professor Hutton, of Dunedin.

Invertebrata.—A large collection, comprising marine mollusca, sponges, polyzoa, crustacea, and echinoderms, was obtained by Mr. Kirk, of the department, on the west coast of the North Island, and a collection of corals and shells from Japan was presented by Mr. H. S. Tiffen, of Napier. Many other interesting specimens were received, the principal being the beak, cuttle-bone, and suckers of a monster cuttle-fish, the body of which measured eleven feet.

Ethnological.—The most interesting additions under this section are the head of a supposed Moriori god, carved in pumice, presented by Mr. A. Clough, of the Chatham Islands; a typical skull of the Polynesian race, by Dr. Hector; specimens of gritstone, used by the Maoris for grinding down greenstone, by Mr. J. White; and specimens of Japanese paper string, &c., by Mr. H. S. Tiffen of Napier.

Minerals.—During the past year about 300 specimens of minerals and rocks have been collected by the officers of the Geological Department. Among them are collections which I obtained, illustrating the progress of various mining ventures on the West Coast; from the Thames Gold Field, White Island, and Tuhua, and from the newly-discovered coal fields on the west coast of the North Island. I also collected a number of mineral specimens of considerable interest during an examination of the auriferous district north of the Wakatipu Lake, in which quartz-reefing evinces a renewal of its former activity. Mr. Cox brought a collection of rocks from the Greenstone River, on Lake Wakatipu, and also several specimens of copper ore and magnetite from D'Urville Island. A very interesting and unique form of copper ore has also been obtained from Aniseed Valley, in connection with the Dun Mountain mineral belt, consisting of a granular serpentine, containing about 5 per cent. of metallic copper, dispersed through the mass of the rock in fine grains. This discovery, if followed up, may perhaps lead to some rich copper deposit, but at present it does not appear to be of much commercial importance. The greater number of the remaining specimens were collected by Mr. McKay from the mountainous district lying between Nelson and the Wairau River, and from various points along the Mount Arthur range. Amongst these are some valuable specimens of brown hematite from Mount Peel, containing 54 per cent. of metallic iron. This ore is associated with fine-grained breccias, dark slates, weathering white, and heavy beds of compact blue crystalline limestone, which overlie the great series of breccia beds and conglomerates which form the western part of the Mount Arthur range. It is largely developed in a north-westerly direction from Mount Arthur, striking in the direction of the ranges west of the Takaka Valley. At the place where the specimens were obtained, the bed might be about 50 feet thick, besides which isolated masses 10 feet to 15 feet across were observed occurring in the dark slates. North of the Takaka River a much greater development of the ore takes place, and diggers who have visited the locality report the deposit as being about a mile in width. It is probable that this deposit of brown hematite is a continuation of the Parapara ore; and, the specimens brought being taken from the surface, when sunk upon this ore will most probably change to red hematite, which, when pure, would contain about 70 per cent. of iron. Mr. McKay followed this deposit for about three miles in length. Marbles of various qualities are represented from the Mount Arthur range, together with granites, hornblendic, eruptive, and serpentinous rocks associated with the Upper and Lower Silurian beds. To the same period should probably be referred the beautiful white statuary marble and the dove-coloured "fortification" marble of Caswell Sound, on the west coast of Otago, which are now being placed in the market by a company that has been formed to work the quarries. The samples received in the Museum indicate it to be a marble of very superior quality for ornamental and building purposes.

The geology of the southern part of the Provincial District of Wellington has also received further illustration in the shape of a number of metalliferous and rock specimens, including specimens of iron, manganese, limestone, serpentinous and eruptive rocks; and from Jenkins Hill, Nelson, another specimen of carbonate of iron, containing 40·8 per cent. of that metal, has been collected, thus adding another locality from which this valuable ore has been obtained. It occurs here under similar conditions to the ore of the same character previously described from Mr. Foote's colliery at the Miranda Redoubt, and is associated with the coal measures.

PALEONTOLOGY.

GEOLOGICAL SURVEY COLLECTIONS.

The fossil collections made during the past year have been both large and important, and represent a great variety of formations ranging from recent times to Lower Silurian.

In the North Island the principal collections have come from the Miocene and Cretaceous beds developed on the West Coast in the Mokau District, while from the East Coast small but important collections have been made. In the Napier District Mr. McKay succeeded in finding Ammonites in