AUGUST, 1870.

The usual monthly meeting of the Society was held on the evening of Tuesday, the 9th of August, T. Giblin, Esq., in the chair.

Among the members present were Messrs. M. Allport, Justin Browne, G. R. Napier, H. J. Buckland, C. Gould, J. M. Clarke, T. Stephens, S. P. H. Wright, L. R. Castray, Dr. Agnew, Hon. Sec., Rev. H. D. Atkinson, and Dr. E. S. Hall; Dr. H. B. Hinton, of H.M. Bengal Army, was also present as a visitor.

The Hon. Secretary submitted the usual monthly returns, viz:—

1. Visitors to Museum during July, 767.
2. Do. to gardens do., 1152.
3. Plants and seeds received at gardens—From Messrs. Taylor and Sangster, Melbourne, 26 plants. From Mr. C. F. Creswell, 24 packets imported flower seeds.
4. Plants, &c., sent from gardens:—To H. B. Laurie, Esq., Encounter Bay, Adelaide, 100 plants of white mulberry. To Messrs. Todd and Co., Dublin, 10 packets seeds. To Military Barracks, 36 sycamores. To Mr. J. Archer,for Church grounds, Longford, 14 Coniferæ. For grounds of St. Michael's Church, New Norfolk, 54 plants. For Castray Esplanade, 32 pines. For Domain, 120 plants. For Government House grounds, 50 plants.
5. Time of leafing, &c., of a few standard plants in Botanic Gardens.
6. Books and periodicals received.
7. Presentations to Museum.

Meteorological Returns.

1. Hobart Town, from F. Abbott, Esq. Table and summary for July.
2. Port Arthur, from J. Boyd, Esq. Table for July.
3. Melbourne, from the Government Astronomer, Tables and Notes for May and June.
4. Sydney, from the Government Observatory. Printed table for February, March, and April.
5. New Zealand, from the Government. Abstract tables from various stations for April.

The presentations to the Museum were as follow:—

1. From H. M. Hull, Esq.—Nest of white shafted fantail *(Rhipidura albiscapa.)*
2. From Mr. G. Gulliver, Melbourne—125 specimens of Australian Coleoptera, named.
3. From Captain Robinson, barque Free Trader—A sample of bituminous coal from a new seam at Newcastle, New South Wales.
4. From Mr. Spurling—A specimen of *Chimæra Australis* caught in the Derwent.
5. From Salmon Commissioners—A Salmon Parr from the breeding ponds, River Plenty.
6. From M. Allport, Esq.—Prawns taken from stomachs of Rock Cod *(Gadus sp.)*.

Mr. M. Allport exhibited a young salmon (presentation No. 5), about four years old, from the breeding ponds at the Plenty, which had never been allowed to visit the salt water, as it illustrated a peculiar circumstance in reference to the development of the fish, which was stated in detail at the meeting of the Society three months ago. It was then shown, from the proceedings of the Zoological Society of London for 1868, that some salmon parr were prevented from going to sea at their due time, that they still assumed the silvery scales of the smolt but afterwards lost them, reassuming the parr markings. This change went on for two or more years, the fish becoming during the process sickly, stunted in growth, and finally perishing. The specimen now shown was very like those

figured in the Zoological Society's Transactions, the parr markings were very distinct, and the stunted and misshapen appearance of the fish was unmistakeable.

Presentation No. 6 was interesting, as, according to Mr. Allport's observations, nothing of the kind, as far as numbers were concerned, had ever occurred till last year. Since that time large numbers had been found in the stomachs of rock cod. This was a proof of the existence of great quantities of these prawns in our waters, and a systematic search would probably secure this delicacy for our market. The same might be said as to the large edible crabs, numbers of which were formerly captured on our coasts when the whales were brought on shore for the extraction of the oil. It was to be hoped that fishing as practised at home would be tried here for both these crustaceans.

The Secretary called attention to the following publications lately received from London, viz. :—Proceedings of Zoological Society of London, Journal of Linnean Society, Journal of Geological Society, Journal of Royal Asiatic Society, Journal and Proceedings of Royal Geographical Society. Presented by the various societies. Also a complete set of the reports of the Paris Exhibition of 1867, the gift of the Society of Arts, per Dr. Milligan.

The following books, for which the Society subscribes, were also received in the same parcel:—Ray Society's vol. for 1868, "Vegetable Teratology," the Transactions of the Society of Arts for 1868-9, and the report of the British Association for 1868.

The Secretary read the following extracts from a letter he had received by last mail from Dr. Milligan :—

"London, 17th June, 1870.

"By the Ethel, Captain Harmsworth, you will receive a parcel containing a copy of each of the two books lately published on the Aborigines of V. D. Land by Mr. James Bonwick, formerly holding some position on the staff of the education department in Tasmania, and first known to me as an author by his having applied to me for scraps of information, touching topographical peculiarities, and geological conditions in sundry parts of the colony, which he embodied in *school geographies*, which he then brought out. I forget what I said (in a former letter) about the books which I have sent to you, but whatever it was it would scarcely be in their praise, for I consider that a spirit most unfriendly and disingenuous as regards the early colonists pervades the whole production. It is a great pity that he has not related a few of the numberless attempts which were made by the more respectable and intelligent of the early settlers to educate and improve the children of the aborigines, and the absolute failure of success in ninety-nine cases out of every hundred. This would have been *only fair*.

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"In the same parcel you have three packets of seeds which I have procured for the Royal Society's gardens, from the Secretary of the Royal Horticultural Society here: the several packets are respectively contributions to the flower and kitchen departments of the gardens, and to your arboretum. Besides which I have sent one packet of seed of the plant which yields the well known and valuable fibre of which the grass cloth of China and India is manufactured. Should you succeed in maturing it, and I can perceive no natural bar to your doing so, you will confer a valuable boon on the colony, seeing that there must arise an unlimited demand for such a fabric (as grass cloth) on the continent of Australia, if indeed it does not already exist."

[This plant is now growing in the public gardens, and Mr. Abbott, the Superintendent, states that it is readily propagated from cuttings. It also

grows freely in Queensland, where, however, some difficulty has hitherto been experienced in the separation of the fibre for commercial purposes.]

Dr. Hall brought under the consideration of the meeting the desirability of procuring direct from Japan a quantity of the seeds of the Umbrella Pine, which Fortune, the Botanist, describes as such a magnificent tree for shade and the ornamentation of parks, &c. He says:—"A whole company of soldiers could bivouac under a full grown tree safe from rain and sunshine." The Society obtained some plants from England at great cost some years ago, but only one has survived. Dr. Hall had no doubt the seeds would grow better here even than in England, and stated that Mr. Assistant Commissary General Castray had informed him he could procure them for the Society direct from Japan. Mr. Castray kindly undertook to do so, as it was the wish of the meeting.

Mr. Gould read a paper on "The habits of the large crayfish (*Astacus sp. ?*) of the northern rivers of Tasmania." The principal points adverted to were the local character of its distribution, a comparison with the same of the blackfish, a discussion upon the nature of its food in regard to the supply of the latter regulating the distribution of the species, a comparison with allied forms in the Northern Hemisphere, and a citation of a few other examples of allied, identical, or representative species, found in the two hemispheres, and impressing the conviction that such species had not originated in independent centres, but mutated under equal conditions, concluding with a reference to examples of species, tending to show that Tasmania had been connected with the main land, within a late geological period, even within the term of life of existing species.

Mr. Allport observed, as to the food of this Astacus, that although large quantities of dead wood might be consumed, as noticed by Mr. Gould, he thought some animal food must also be taken.

Mr. Gould, in reply, quite agreed with Mr. Allport in supposing that they ate animal food when they could get it, but this was much seldomer than generally imagined; that in regard to the Unio, which had been supposed to be the staple article of their food, it was his belief that it was entirely absent from many of the rivers inhabited by the Astacus. Neither did he think that the crayfish was by any means so destructive to the blackfish as imagined; they must have great difficulties in capturing them, and the blackfish did not seem to exhibit any of that fear and avoidance of these crustaceans, which would naturally be induced if they had been habitually preyed on by them.

In reply to Mr. Stephens, who wished to know if the crayfish was found in rivers east of the Tamar, Mr. Gould mentioned the Piper and Forrester Rivers, being from his own personal observation well stocked with them.

Mr. T. Giblin stated that he had brought, about four years ago, from the North several living specimens of these crayfish, much larger than that now before the meeting, and had liberated them in the Derwent, about three miles above the falls at New Norfolk, but from that time he had never heard of them, and it was not possible to say with certainty whether they had succeeded or not.

Conversation having taken place as to the range of habitat of some of our fish, Mr. Giblin mentioned that the so-called cucumber fish (*Prototroctes muræna*), of New Norfolk was at one time, and probably still is, plentiful in the Yarra. Mr. Gould observed that the presence of these and other fish in the rivers on opposite sides of Bass's Straits, was another proof that at some former period Tasmania and the Australian mainland had formed one continent.

A vote of thanks to Mr. Gould, Dr. Milligan, the other donors of presentations closed the proceedings.