

1923.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

AUSTRALIAN MUSEUM.

(ANNUAL REPORT OF THE TRUSTEES FOR THE YEAR ENDED 30 JUNE, 1923.)

Presented to Parliament pursuant to Act No. 61, 1902, Sec. 10.

Printed under No. 15 Report from Printing Committee, 20 December, 1923.

TO HIS EXCELLENCY THE GOVERNOR,—

The Trustees of the Australian Museum have the honor to submit to your Excellency their Sixty-ninth Report, being for the year ended 30th June, 1923.

1. TRUSTEES.

It is with great regret that the Trustees report the death, on 16th June, of Mr. George McRae, formerly Government Architect, who has been a Trustee since May, 1921. Mr. McRae's expert knowledge was always placed freely at the disposal of the Board, and his death is a severe loss.

The following is a list of the Trustees, with a record of their attendances at Board Meetings; there were eleven ordinary meetings during the year:—

Crown Trustee.

Mr. James McKern	10
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Official Trustees.

Statutory—

His Honor the Chief Justice	—
The Hon. the Colonial Secretary	—
The Hon. the Attorney-General	—
The Hon. the Colonial Treasurer	—
The Auditor-General	10
*The President of the Medical Board (Dr. T. S. Dixon, President)	9

Appointed—

The Hon. the President of the Legislative Council	—
The Crown Solicitor	—
The Surveyor-General and Chief Surveyor	1
The Hon. the Secretary for Public Works and Minister for Railways... ..	—
The Hon. the Minister for Education	—

Elective Trustees.

*Prof. W. A. Haswell, M.A., D.Sc., F.R.S.... ..	5
*Prof. Sir T. W. E. David, K.B.E., C.M.G., B.A., F.R.S.	3
Mr. W. H. Hargraves	8
Dr. Eric Sinclair	6
*Colonel The Hon. Sir James Burns, K.C.M.G., M.L.C.	—
Dr. J. R. M. Robertson	4
*Mr. Ernest Wunderlich, F.R.A.S.	4
Dr. G. H. Abbott, B.A.	4
Mr. J. Vernon	5
The Hon. D. Levy, B.A., LL.B., M.L.A.	5
Mr. J. J. Fletcher, M.A., B.Sc.	11
Mr. G. McRae	3

* Leave of absence for part of the year.

To facilitate the work of the Board, three Sectional Committees, elected yearly in December, meet monthly and make recommendations on matters coming within their purview. The House Committee deals generally with all questions affecting the staff, and such matters as structural improvements, alterations, and additions; the Scientific and Publication Committee controls the publications of the Museum and the acquisition and exchange of specimens and publications; the Finance and Publicity Committee supervises the finances of the institution and devises measures for the purpose of popularising the Museum and making its contents and educational advantages better known to the public.

The members of these Committees and their attendances are given below; the President is *ex officio* a member of each committee. At the December meeting certain changes in personnel were made, Mr. Wunderlich taking the place of Mr. Coghlan on the Finance and Publicity Committee. Mr. Coghlan was elected on the House Committee, and the members of the Scientific and Publication Committee were re-elected.

Finance and Publicity Committee—

Mr. Coghlan (Chairman till Dec.)	...	4
Mr. Wunderlich (Chairman)	...	5
Mr. McKern	...	11
Mr. Hargraves	...	9
Sir James Burns	...	—
Mr. Vernon	...	4

Twelve meetings were held.

House Committee—

Mr. McKern (Chairman till Dec.)	...	7
Mr. Coghlan (Chairman)	...	6
Dr. Dixon	...	7
Professor Haswell	...	5
Mr. Hargraves	...	5
Dr. Robertson	...	4
Mr. McRae	...	5

Eleven meetings were held.

Scientific and Publication Committee—

Dr. Sinclair (Chairman)	...	6
Professor Haswell	...	7
Mr. Fletcher	...	9
Professor David	...	2
Dr. Abbott	...	6

Eleven meetings were held.

A Special Committee was appointed to arrange for a public function in connection with the completion of the boundary wall and rearrangement of the grounds on the William-street frontage. The committee, consisting of the President, Dr. Sinclair, Mr. McKern, and Mr. McRae, met on 14th May, and reported to the Board on 1st June.

2. SCIENTIFIC STAFF.

Several changes have taken place during the year. The Scientific Staff was strengthened by the inclusion on 3rd November of Mr. W. S. Dun, Palaeontologist to the Geological Survey and Lecturer on Palaeontology at the University of Sydney, as Honorary Palaeontologist.

The following is a list of the Scientific Staff as at 30th June, 1923:—

Name and Office.	Date of first appointment in the Museum.	Date of appointment to present position.
Charles Anderson, M.A., D.Sc., Director	22 July, 1901	14 Feb., 1921
Charles Hedley, Principal Keeper of Collections and Conchologist	1 April, 1891	14 Feb., 1921
Allan R. McCulloch, Zoologist in charge of Fishes	1 July, 1901	1 July, 1906
Wm. W. Thorpe, Ethnologist	9 Oct., 1899	1 July, 1906
J. Roy Kinghorn, Zoologist in charge of Birds, Reptiles, and Amphibia	1 Sept., 1907	4 Feb., 1921
Ellis Le G. Troughton, Zoologist in charge of Mammals and Skeletons	13 Jan., 1908	4 Feb., 1921
Anthony Musgrave, Entomologist	7 Feb., 1910	1 June, 1920
F. A. McNeill, Zoologist in charge of Lower Invertebrates	18 May, 1914	3 Feb., 1922
T. Hodge Smith, Mineralogist and Petrologist	18 July, 1921	3 Mar., 1922
Professor T. Harvey Johnston, M.A., D.Sc., Hon. Zoologist	18 Feb., 1908	5 Mar., 1909
Edw. F. Hallmann, B.Sc., Hon. Zoologist	9 June, 1909	1 April, 1912
A. F. B. Hull, Hon. Ornithologist	7 Sept., 1917	7 Sept., 1917
G. A. Waterhouse, B.Sc., Hon. Entomologist	3 Oct., 1919	3 Oct., 1919
H. J. Carter, B.A., Hon. Entomologist	2 July, 1920	2 July, 1920
Professor L. Harrison, B.Sc., B.A., Hon. Zoologist	1 July, 1921	1 July, 1921
E. S. Briggs, B.Sc., Hon. Zoologist	1 June, 1912	1 July, 1921
W. S. Dun, Hon. Palaeontologist	3 Nov., 1922	3 Nov., 1922

For a list of the other members of the staff see Appendix I.

3. BUILDINGS AND GROUNDS.

Tenders having been called for the erection of a boundary wall and improvement of the William-street frontage, and for the construction of a roadway from William-street to the rear of the Museum premises, that of the Constructor of Buildings was accepted, and work was commenced in November. The work is now well forward and will be completed very shortly. Great improvement in the appearance of, and the approaches to, the building has been achieved. The electric light service has been extended and now supplies the offices in the south wing, and other rooms which were previously badly lighted. Electric power has also been provided to drive the printing machine, resulting in a great economy of labour and time.

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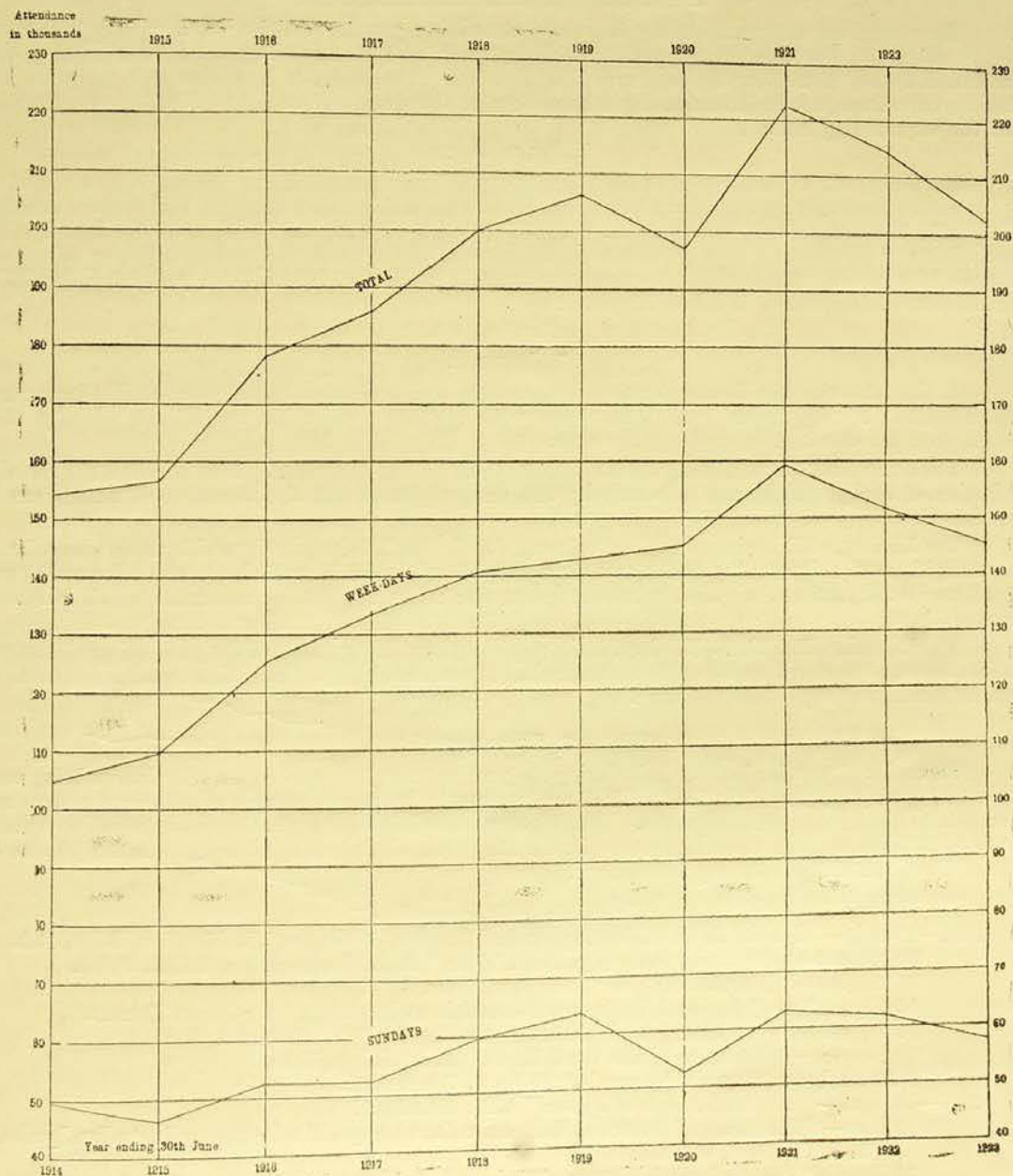
An enlargement of the premises is an urgent necessity, and the Government has been approached with a request that an extension of the existing buildings be authorised, and that a sum of money be placed on the Loan Estimates so that a start may be made with this very necessary work. The exhibition and storage rooms, and also the library, have long been overcrowded, and, if a section of the comprehensive plan prepared years ago were completed, much needed relief would be obtained.

4. ATTENDANCE OF VISITORS.

The decline in attendance shown for the last two years is probably a result of the drought and the consequent reduction in the number of country visitors.

Summary.

Year.			Week-days,	Sundays.	Total.
1913-1914 (1st July to 30th June)...	...	...	104,830	49,313	154,243
1914-1915	"	"	...	...	109,922
1915-1916	"	"	...	...	125,978
1916-1917	"	"	...	...	133,645
1917-1918	"	"	...	...	140,977
1918-1919	"	"	...	...	142,977
1919-1920	"	"	...	...	145,058
1920-1921	"	"	...	...	159,576
1921-1922	"	"	...	...	151,544
1922-1923	"	"	...	...	145,271
					57,600
					202,871



5. EXHIBITS.

The most important new exhibits installed during the year are the Coral Pool and the Admiralty Islets Bird Group. As in the case of the Boatswain Bird Group described in last year's Annual Report, the specimens, materials, and notes necessary for the construction of these fine exhibits were obtained at Lord Howe Island by a Museum party under the leadership of Mr. A. R. McCulloch. In each case the background was painted by Mr. H. R. Gallop. The cost was largely defrayed by a donation from Messrs. A. E. and O. Phillips, Sir James Burns, Sir Hugh and Mr. William Dixon, to whom the grateful thanks of the Trustees are tendered.

The Coral Group depicts a pool on the edge of the Lord Howe Island coral reef, where all the rocks are covered with living corals of many kinds. Associated with the corals is a wealth of animal life, which finds shelter in the crevices of the reef and a plentiful food supply. Brilliantly coloured fishes gather round holes and channels in the reef edge, and starfishes and sea urchins are seen burrowing among the coral. On the sandy floor of the pool are some black, slug-like sea cucumbers or *bêche de mer*.

The exhibit was prepared by Messrs. G. C. Clutton and J. Kingsley of the Museum staff; the colouring was done from life by Miss P. F. Clarke.

The Bird Group represents a corner of a nesting colony of five species of sea birds which annually visits the Admiralty Rocks at Lord Howe Island. A rocky ledge in the foreground is crowded with the nesting birds, their eggs and young. The graceful Wide-awake Terns are the most numerous; Grey-capped Noddies perch upon the few available bushes; Mutton birds are seen in burrows or crevices in the rocks. A bulky mother Gannet and its young are conspicuous by their size. In the background is the lofty island of Lord Howe, with a stretch of blue water in the middle distance.

This exhibit is the work of the Taxidermists, Messrs. H. S. Grant, J. H. Wright, and W. Barnes.

6. THE AUSTRALIAN MUSEUM MAGAZINE.

Four numbers appeared during the year, containing popular articles on a variety of natural history subjects. The demand for copies continues good, and we have had inquiries from the other Australian States, from New Zealand, and from America. The Trustees hope that this magazine will play an important part in disseminating a knowledge of the ethnology and the animal life of Australia and the surrounding Pacific.

7. ESSAY PRIZE.

Mr. George A. Taylor, Editor of *Building*, has generously presented five guineas to be awarded as a prize for the best essay by a pupil of a New South Wales school, the subject being "A Visit to the Australian Museum." The competitors, who must be between the ages of twelve and sixteen on 1st March, 1924, may select any department, or may write a general account of the whole institution, the essay to contain 1,500 to 2,000 words. The last day for receiving essays is 1st March, 1924. The successful essay will be published in the *Australian Museum Magazine*.

7. LIBRARY.

During the year the library acquired by purchase and exchange 414 volumes, besides loose parts and reprints. Arrangements have been made with additional scientific institutions whereby their publications are obtained in exchange for ours.

The damp condition of the basement continues to be a cause of concern. Here is housed the valuable collection of foreign serials, and it is only by unceasing vigilance that the formation of moulds can be prevented.

The Library, whilst primarily one of reference for the Staff, is frequently used by research students, including those of neighbouring States and the nearby Dominion of New Zealand, who fully realise and appreciate its extensiveness. Artists and designers also make appeals for assistance which is readily granted.

The Librarian, Mr. W. A. Rainbow, as in previous years, has supervised the production of Museum publications and rendered considerable assistance in the work of editing. Attention to matters related to lectures has also occupied his attention.

8. LECTURES.

The series of popular lectures held during the year was most successful, the attendances being very large, taxing the capacity of the Lecture Hall to the utmost; frequently many would-be hearers have not been able to obtain even standing room. Now that the electric light is available a new projection lantern has been installed, namely, the Graphoscope Junior Projector, which is adapted to show ordinary slides or cinema films, and has proved very satisfactory.

The subjects and lecturers during the year were as follows:—

- 1922—13 July—"Insects as Causative Agents and Carriers of Disease," L. Harrison, B.Sc., B.A.
- 10 August—"Odds and Ends of a Bush Walk," F. L. Grutzmacher, F.C.S., F.G.S.
- 31 August—"Travels in North Queensland," Dr. J. V. Danes.
- 13 September—"National Parks and Memorials to Explorers," Sir James Barrett.
- 14 September—"Spiders: their Structure and Habits," A. Musgrave.
- 12 October—"Romance of the Coral Reefs," E. A. Briggs, B.Sc.
- 9 November—"Aquatic Mammals," E. Le G. Troughton.
- 1923—12 April—"The Mud People of Papua," A. R. McCulloch.
- 10 May—"The Past and Future of Wild Animals, with special reference to Australian Species," A. S. Le Souef, C.M.Z.S.
- 14 June—"The Geological History of Sydney," T. Hodge Smith.

The Museum Extension Lectures were continued, and during the year the following lectures were delivered in suburban and country centres:—

- 1922—3 July—"Life in Past Ages," Dr. C. Anderson (Mechanics' Institute, Goulburn).
 19 July—"Geology of Sydney District," T. Hodge Smith (Newtown School of Arts).
 14 September—"Formation of the Blue Mountains and the Coastal Plain," T. Hodge Smith (Penrith School of Arts).
 30 October—"Who's Who Among the Reptiles," J. R. Kinghorn (Mechanics' Institute, Goulburn).
 1923—1 June—"The Romance of Gold Mining in New South Wales," T. Hodge Smith (Teachers' Federation, Goulburn).

On two occasions Mr. W. W. Thorpe gave anthropological demonstrations in the Museum to members of the Eugenics Section of the Workers' Educational Association.

9. COLLECTING.

Through lack of funds it has not been possible to carry out many extensive collecting operations during the year, but short field trips have been made by various members of the staff.

Mr. A. R. McCulloch was granted official leave to accompany Captain Frank Hurley to New Guinea. He was away from 29th August, 1922, till February, 1923, and brought back a valuable Ethnological and Zoological collection.

Mr. A. F. Basset Hull, Honorary Ornithologist, and Cadet A. A. Livingstone, were collecting in Southern Queensland for three weeks in July and August, obtaining a valuable series of marine invertebrates.

Mr. H. O. Fletcher accompanied Mr. G. H. Halligan on an exploring trip to Lake Eyre, Central Australia, being away from 26th July until 23rd August.

Messrs. A. Musgrave and W. Barnes joined a party led by Prof. L. Harrison to make a preliminary biological survey of the Myall Lakes district, New South Wales, bringing back a number of interesting mammals, birds, and invertebrates.

Messrs. J. R. Kinghorn, H. O. Fletcher, and J. H. Wright visited the Upper Colo district, New South Wales, in October, and made collections of mammals, birds, and reptiles; cordial thanks are due to the Under Secretary, Department of Agriculture, and to the Principal, Hawkesbury Agricultural College, for assistance in connection with this trip.

In October Mr. T. Hodge Smith spent three days at Ardglen, New South Wales, investigating the rocks and minerals of the Railway quarry.

Mr. C. Hedley, who is the representative of the Trustees on the Committee for Investigation of the Great Barrier Reef, left Sydney on 18th May, 1923, to join a party led by Prof. H. C. Richards, which proceeded along the Barrier Reef from Cairns northward to Thursday Island, making landings at various points.

In April the Director and Mr. A. Musgrave spent ten days on the Belubula River, near Mandurama, New South Wales, making collections in the caves and the neighbourhood. It was hoped that fossil bones might be found in the cave earth, but none were seen.

In June the Director, accompanied by Mr. W. S. Dun, Honorary Palaeontologist, paid a short visit to Cuddie Springs, Gilgoin Station, near Brewarrina, New South Wales, where, there is good reason to believe, an extensive deposit of extinct marsupials and other vertebrates has been formed in a mud flat surrounding a "mound spring" or swamp. The locality was inspected with a view to its systematic development and it is hoped that work may shortly be commenced on this important fossiliferous deposit.

10. CURATORIAL WORK.

Mammals (Mr. E. Le G. Troughton in charge).—Interesting donations from the Taronga Park Zoological Trust included various marsupials, an antelope, monkeys, and a female and young of the "Australian Fur Seal" (*Otaria cinerea*). Notable private donations included the following:—A "Three-toed Echidna" or "Spiny Ant-eater" (*Zaglossus bruijnii*) from His Excellency Judge Murray, Lieut.-Governor of Papua; a pouched mouse (*Phascogale*), and a "Ring-tailed Opossum" from a very interesting locality, from Mr. H. L. White; two indigenous rats, which were invaluable for study purposes, from Prof. F. Wood Jones; a skin of a recently described wallaby (*Macropus welsbyi*) from Mr. A. H. Chisholm; several specimens of the rare "Honey Mouse" (*Tarsipes spenserae*) from Mr. D. Morgan, Western Australia; several native rodents, including specimens of the "Stick-nest Building Rat" (*Leporillus conditor*) from Mr. A. S. Le Souef; a collection of rodents and marsupials, part of the collection of the late Robert Grant from Mr. H. S. Grant.

Exchanges yielded excellent material, which included native rodents from the Queensland Museum and the American Museum of Natural History, and a topotypical specimen of the recently discovered, Pearson's Island Wallaby (*Petrogale pearsoni*) from Prof. F. Wood Jones.

A fine series of the rare and interesting "Honey Mouse" (*Tarsipes spenserae*) was purchased, forming a valuable addition to the marsupial collection.

During the year systematic improvement of the collection has been effected by the naming of hitherto unidentified species, concurrently with the study of recent additions of marsupials, rodents and bats; the Taxidermists are removing skulls from old skins of the latter to enable a revision of the Fruit Bats being made. The wired mammal skins in boxes were sorted, the card catalogue checked, specimens of a fragile nature or special interest being removed to more suitable storage. The mammal and osteological galleries were treated with disinfectants and cases repapered, new labels being reprinted where necessary.

At the request of the Bureau of Science and Industry a general report on local seals was compiled and was acknowledged in complimentary terms by that Institution and the Prime Minister's Department. A paper on "The Bats of Australia and New Guinea" was prepared for publication; it has already been of service for identifying unnamed species in the collection.

The following papers were published during the year:—

"A Revision of the Rats of the genus *Leporillus* and the status of *Hapalotis personata* Krefft," *Rec. Austr. Mus.*, xiv, 1, 1923, pp. 23-41, pls. v-vi.

"Notes on Australian Bats, and the occurrence of *Chalinolobus gouldii* Gray at Norfolk Island," *Austr. Zoologist*, iii, 1, 1922, pp. 39-41.

Skeletons (Mr. E. Le G. Troughton in charge).—A fine series of human crania, originally from a very interesting locality in the centre of Newcastle, New South Wales, was donated by Dr. H. Martin Doyle, M.L.C.; other crania were donated by Mr. A. J. Vogan and Mr. C. Hedley. Three skulls of "Tree Kangaroos" were presented by Mr. H. S. Grant.

Seventy-two crania and six skeletons were cleaned by the Articulators, providing further valuable material for study.

An excellent collection of thirty-eight mammals, including a "Spiny Ant-eater" (*Tachyglossus*), marsupials, and native rodents, was secured by Messrs. A. Musgrave, W. Barnes, and H. Burrell at Myall Lakes, New South Wales. A very interesting collection of Mammals was obtained by Mr. A. R. McCulloch in Papua, including marsupials, indigenous rodents of several genera, and Fruit Bats (*Pteropus papuanus*). Three Rock Wallabies (*Petrogale pearsoni*) were collected by Messrs. J. R. Kinghorn, H. Wright, and H. O. Fletcher.

Birds (Mr. J. R. Kinghorn in charge; Mr. H. O. Fletcher assistant).—During the year 246 specimens were added to the collection, the donations totalling 153, while those collected number 193.

Mr. H. O. Fletcher has completed the catalogue of the reference and duplicate collections, and is now engaged in rearranging and bringing together all birds of a kind which were previously distributed throughout many cabinets. The galleries have been thoroughly overhauled and attended to by Mr. H. S. Grant and his assistants, Messrs. J. H. Wright and W. Barnes, who also partly rebuilt and improved the background of the Antarctic Case. The Boatwain Bird group was completed, and is a most excellent piece of work. Mr. Kinghorn has given several lecturettes or demonstrations within the Museum, as well as at meetings of the Royal Australasian Ornithological Union, and occasional help has been given to the Checklist Committee (in Melbourne) by the loan of bird skins for comparative purposes. A selection of sea birds was sent on loan to Dr. Leverett Mills Loomis of the California Academy of Sciences, and many others have been lent to Mr. N. W. Cayley in connection with his work "Cayley's Birds of Australia."

Several papers and articles have been published in *The Emu* and the *Australian Museum Magazine*. Paper published:—

"On the Status of several Species belonging to the Genera *Fregatta* sp., and *Fregattornis* Matthews" (in co-authorship with N. W. Cayley), *The Emu*, xxii, part 2, pp. 81-97, pls. xxvi-xxix.

Reptiles and Amphibians (Mr. J. R. Kinghorn in charge; Mr. H. O. Fletcher assistant).—During the year 344 specimens were received, and out of the total number 106 were donated, 155 exchanged, and 53 collected.

One of the most valuable additions received during the year was a perfect specimen of the Fly River Turtle (*Carettochelys insculptus*), which was collected by Mr. A. R. McCulloch while in Papua with Captain Frank Hurley, who presented a carapace and two skulls (lacking mandible) of the same species. A rare sea snake and several other interesting reptiles were also collected by Mr. McCulloch. A new genus and species of an Elapine Snake, collected by Mr. W. McLennan, was presented by Mr. H. L. White of Belltrees, Scone, and was fully described in the Museum Records.

Several lecturettes and demonstrations were given in the galleries.

A number of bird and reptile skeletons have been prepared by Mr. G. C. Clutton and his assistant Mr. J. Kingsley, and a splendid cast of an American Alligator (*A. mississippiensis*) has been completed, this being coloured by Miss H. E. Bailey.

The galleries have received full attention by Messrs. G. C. Clutton, H. S. Grant, and W. Barnes, while the spirit-house collections have been attended to by Messrs. Kinghorn and Fletcher.

The number of letters answered during the twelve months was double that of last year.

The following paper has been published:—

"A New Genus of Elapine Snake from North Australia," *Rec. Austr. Mus.*, xiv, 1, pp. 42-5, pl. vii.

Fishes (Mr. A. R. McCulloch in charge; Cadet G. P. Whitley assistant).—The appointment of a junior assistant, Mr. G. P. Whitley, in this department has greatly facilitated the work, and the large reference collection has benefited accordingly. Although Mr. McCulloch was absent collecting in Papua during a considerable portion of the year, many improvements were effected in the spirit-house under the supervision of Mr. F. A. McNeill. A rearrangement of the spirit collections made room for a large series received from the Fisheries Department some years ago, thus allowing the whole fish collection to be brought together under one roof. A specially valuable collection of American and Hawaiian fishes, including many taken by the Fisheries Survey vessel "Albatross" and forwarded to the Fisheries Department by the United States National Museum, was intercalated with our reference collection; the Trustees are indebted to the United States National Museum for complete lists of identifications and data of these specimens, which were unlabelled when received at this institution. Exceedingly interesting collections have also been received from Mr. E. H. Rainford, made in the neighbourhood of Bowen, Queensland, and from Mr. R. Baxter of Lord Howe Island.

The exhibition collections have likewise received some interesting additions, and fine casts of large specimens, including two Eels and a Stone-lifter, have been prepared and coloured. These have been substituted for discoloured spirit specimens and inferior stuffed examples, and have added considerably to the interest of the gallery.

The card index has also been revised and the cards of all different sections brought under one head, so one may now see at a glance what is in the collection. The contents of the large tanks are being systematically overhauled, checked, resorted, and finally wrapped in butter-muslin for their better protection.

The following papers have been published:—

"Notes and Illustrations of Queensland Fishes, No. 3," *Mem. Qld. Mus.*, vii, 4, 1922, pp. 241-4, pl. xiv.

"Notes on Fishes from Australia and Lord Howe Island," *Rec. Austr. Mus.*, xiv, 1, 1923, pp. 1-17, pls. i-iii.

"Notes on New Zealand Fishes" (in co-authorship with Mr. W. J. Phillipps), *Ibid.*, pp. 18-22, pl. iv.

The identification of the deep water fishes collected by the trawler "Endeavour," interrupted for a considerable time, has now been put in hand again, and a report upon them is in preparation.

Insects and Arachnids (Mr. A. Musgrave in charge; Cadet T. G. Campbell assistant).—During the year a number of important donations were received, among which may be mentioned a large collection of insects from Cape York and Banks Island, Torres Strait, collected by Mr. W. McLennan and presented by Mr. H. L. White of Scone, a valuable collection of miscellaneous insects from Papua presented by Dr. E. O. Pockley, and a number of insects from the Northern Rivers District presented by Mr. A. Musgrave. To Mr. A. F. Basset Hull we are indebted for a collection of insects from King Island, Bass Strait, to Dr. E. W. Ferguson for types of recently described Australian Diptera, and to Mr. G. Goldfinch for a collection of Australian Moths.

A number of collecting trips were made during the year, one being the result of an offer made by Prof. L. Harrison of the University of Sydney for representatives of the Museum to accompany a party of students to the Myall Lakes, Messrs. Musgrave and Barnes proceeding with the party and returning with a number of insects and arachnids. A party under Mr. J. R. Kinghorn, which collected at the Upper Colo River secured a number of insects which form a useful addition to the collection. Mr. A. R. McCulloch, who accompanied Captain F. Hurley to Papua, has presented to the department a series of valuable insects collected by him on the Fly River and other localities rarely visited by white men. A trip to the Belubula Caves was undertaken by Dr. Anderson and Mr. Musgrave, several hundred insects being secured in the vicinity of the caves. In view of the inroads made on the breeding grounds of our local insect fauna by the expansion of the city, several trips were made by Messrs. Musgrave and Campbell in order to secure specimens.

The principal work of the department has been the revision and rearrangement of the Australian Coleoptera, the revision and cataloguing of our Australian Arachnida, while the rearrangement of the gallery with the writing of labels has occupied a considerable amount of time. In addition, routine work, such as the labelling, identification, and registration of the large collections received, as well as the writing of minutes on material submitted by the public for determination has absorbed much time. Mr. Musgrave speaks highly of the ability of Cadet Campbell, who has conducted the affairs of the Department during Mr. Musgrave's absence on collecting trips.

The following articles were published in the *Museum Magazine*:—

"Stick and Leaf Insects," by A. Musgrave, i, 6, pp. 177-181.

"A Naturalist in the Chichester Valley," by A. Musgrave, i, 7, pp. 193-6.

"The Yellow Monday Cicada," by A. Musgrave, i, 7, pp. 204-8.

Mollusca (Mr. C. Hedley in charge; Miss J. K. Allan, assistant).—A memoir on the Australian Turridæ, to which reference has been made in several previous Reports, was issued last September. Dealing with the most numerous and difficult family in the mollusca and being one of the largest single contributions to Australian Conchology, it has been received with satisfaction by students both at home and abroad. The land shells have now been taken up by Mr. Hedley for a corresponding revision, and progress on this group is now reported.

Part of the cabinet collection has been revised and rearranged, but want of room interrupted this work, which will be continued as soon as the necessary space becomes available.

Numerous teaching collections have been made up and issued to school museums. As usual, many collectors and inquirers have been assisted both personally and by correspondence.

Further parcels of Cephalopoda have been despatched to Dr. Stillman Berry of California. We hope to receive from that authority an important paper dealing with the Cephalopoda of this State.

A pair of admirable enlarged models of chitons were prepared and presented by Mr. R. Hawkins. Mr. W. L. Longley gave a series of local shells polished and mounted as articles of jewellery. A series of mollusca from King Island was presented by Mr. A. F. Basset Hull; a collection from New Caledonia by Mr. A. J. Vogan; from the Trobriand Islands by Mrs. Auback; and from Kangaroo Island, South Australia, by Mr. A. H. Anderson. The following were collected by the staff: A series of marine mollusca from Daru, Papua, by Mr. A. R. McCulloch, and a series of land and fluviatile mollusca from the neighbourhood of the Belubula Caves by Dr. C. Anderson and Mr. A. Musgrave.

Marine Invertebrata (Mr. F. A. McNeill in charge; Cadet A. A. Livingstone, assistant).—During the year working card catalogues of the Bryozoa and the slide collection of Vermes have been prepared, and the reclassification, checking, and card cataloguing of the Decapoda and Stomatopoda in spirit is on the verge of completion. The dry collection of Crustacea was seriously attacked by fungoid growths while accommodated in one of the store sheds, but has now been removed to better quarters. The contents of the cabinet are being carefully examined and the growths removed with the aid of carbolic acid solution. At the same time a card catalogue of this material has been prepared and the specimens relabelled. The fumigation of the extensive gallery and dry store collections has been regularly attended to, and several

new

new labels written for the more interesting exhibits. Some time was devoted to the card indexing of current literature on the Decapoda for the purpose of facilitating the identifications of species of this group, and for research purposes.

A continuation of last year's exchange of Echinodermata with Dr. T. Odhner, of Stockholm, has been the means of securing for the Museum many additional and interesting species not previously represented in the collection. The enthusiasm of Mr. E. H. Rainford of Bowen, Queensland, has been the means of adding still further batches of valuable tropical species to the large collections received from this gentleman in the previous year. His principal donation was a series of the large and beautifully tinted starfish (*Pentaceros nodosus*) from the Port Denison district. Each of the specimens was cleverly coloured from life and the whole make an attractive gallery exhibit.

The manuscript of two reports on the material collected by the F.I.S. "Endeavour" has come to hand during the year. That on the Amphipoda by Dr. Chas. Chilton, Canterbury College, New Zealand, has been dealt with in conjunction with the specimens concerned, and is now in print. The other report, by Dr. Waldo Schmitt, of the United States National Museum, describes several families of the Decapoda Macrura. The specimens on which this last work is based have only recently been received from America, and work on them and the manuscript is in progress. We continue to forward batches of Isopoda and Amphipoda to Dr. Chas. Chilton, whose identifications have enabled us to greatly enlarge our knowledge of the Australian species of these crustaceans. Under this happy arrangement we have brought many interesting forms under the notice of Dr. Chilton, who has already contributed a series of Notes for publication in the Museum Records.

Under an agreement with Dr. G. Stiasny, of Leyden, Holland, we have collected and forwarded series of several local species of Scyphomedusæ. This worker proposes to revise the researches made in the 'eighties by Baron R. von Lendenfeld, and is to return named duplicates to the Australian Museum.

On the 29th of July, Cadet A. A. Livingstone embarked on a three weeks' collecting trip to Queensland, under the charge of Mr. A. F. Basset Hull, Honorary Ornithologist. Collections were made at Noosa Head, Point Cartwright, and Caloundra. The specimens secured included many species of Bryozoa and Decapoda, among which were several forms quite new to the collections.

Short day trips to Gunnamatta Bay, Manly, Maroubra, Long Reef, and North Harbour, have resulted in greatly enriching our field knowledge, and at the same time procuring for the Museum additional specimens of the often neglected local fauna.

A party comprising members of the Naturalists' Society of New South Wales were conducted on an extensive tour through the Australian Mammal and Invertebrate galleries. Many letters of inquiry have been attended to and information given to a number of callers.

The following paper and articles were published during the year:—

"Notes on Australian Decapoda," by Allan R. McCulloch and F. A. McNeill, *Austr. Mus. Rec.*, xiv, 1, 1923, pp. 49-59, pls. ix-xi.

"Experiences and Impressions of a Collecting Trip on a Trawler," by A. A. Livingstone, *Austr. Mus. Mag.*, i, 6, 1922, pp. 171-6.

"Crustacean Camoufleurs," by F. A. McNeill, *Austr. Mus. Mag.*, i, 8, 1923, pp. 243-6.

"Life and Strife among the Sea Birds," by A. A. Livingstone, *Austr. Mus. Mag.*, i, 8, 1923, pp. 251-2.

Ethnology (Mr. W. W. Thorpe in charge; Mr. H. O. Fletcher assistant).—The chief donations during the year were:—A number of Maori stone adze and axe blades by Dr. R. Stopford, M.L.A.; cylindro-conical stones and axes, Darling River district, by Mr. H. S. Officer; human skull and stuffed head, Fly River, New Guinea, by Mr. P. T. W. Black; an extensive collection of various stone implements from Western New South Wales, by Mr. C. J. McMaster; carvings and other ethnological specimens from New Caledonia, by Mr. A. J. Vogan; spears and arrows from New Caledonia, by Madame Chabert; cuirass, skull, and domestic implements by the Acting Administrator of Papua; the South Pacific Collection of the late Captain W. H. Steele, by Mrs. S. A. Steele; shell currency from the Solomon Islands, by Mrs. M. M. Hobbs; aboriginal stone axes, by Mr. A. D. Bertram.

Purchases included three human skulls with restored features from the Sepik River, New Guinea; a series of weapons and domestic implements from the New Hebrides; stone figures from the Baining District, New Britain.

By exchange with the Copenhagen Museum we acquired a collection of Eskimo articles, including models of an igloo and of canoes. An elaborate feather head ornament from New Guinea was received in exchange with Captain Frank Hurley.

A large collection illustrating the culture of the Delta, Gulf, and Western Division of Papua, including specimens from the upper reaches of the Fly River and from Lake Murray, was made by Mr. A. R. McCulloch in conjunction with Captain Frank Hurley.

The various collections have been maintained in good order although with increasing difficulty, as the storage sheds where the large reserve collections are housed are very defective owing to leakage and structural deterioration.

The chief ethnographical installations were a case of small objects from New Caledonia and the Loyalty Islands, and another containing bead work and ornaments from the Solomons and Santa Cruz.

During the year the extensive and valuable collection of ethnological articles, mostly from the Pacific Islands, made by the late P. G. Black, was offered to the Trustees, who were obliged to decline the purchase for lack of funds.

The following articles were published during the year:—

"The Palolo Worm," by W. W. Thorpe, *Austr. Mus. Mag.*, i, 7, p. 220.

"Primitive Fire Production," by W. W. Thorpe, *Austr. Mus. Mag.*, i, 8, pp. 249-251.

Palæontology (The Director and Mr. W. W. Thorpe in charge).—Additions to the collection comprise a series of Permo-carboniferous invertebrates and Triassic plants purchased from Mrs. Mewton and a collection of Tertiary sharks' teeth from Mr. H. Matthias. By exchange with the Prague Museum we obtained a fine collection of Palæozoic fossils from Bohemia, and a magnificent cast of the skull and

lower jaw of the gigantic carnivorous dinosaur *Tyrannosaurus rex* was received in exchange from the American Museum of Natural History. This skull has been exhibited along with the fine cast and thigh bone of the *Camarasaurus* received last year from the same institution, and the two form a very striking exhibit. A fine restoration of the skull and mandible of the extinct turtle, *Miolania platyceps*, of Lord Howe Island, has been prepared by Mr. J. Kingsley, Articulator's assistant. A paper describing some remains of this fossil and a new *Miolania* from Walpole Island, near New Caledonia, is in course of preparation.

Mr. W. S. Dun, Honorary Palaeontologist, gave valuable assistance during the year.

Numismatics (Mr. W. W. Thorpe in charge).—The principal donations were:—A set of eleven gold, silver, and bronze coins issued by the South African Republic in 1892, by Brigadier-General Reuter E. Roth, C.M.G., D.S.O., V.D.; three service medals with ribbons and clasps, by the British South Africa Company; eight service medals with ribbons and clasps, by the Honorable the Secretary of State for India; two service medals with ribbons, by the Secretary for Defence, Union of South Africa. These were obtained through official action on the part of the Department of Education and the courtesy of the Agent-General for New South Wales, and the opportunity is taken of expressing our gratitude to the Department and to Sir Timothy Coghlan for their efforts on behalf of the Museum. Eight service medals with ribbons and clasps were purchased from the Imperial Government.

Requests for identification of coins have increased in number to a remarkable extent, and Mr. Thorpe has spent much time in attending to this demand and generally creating an interest in the study of numismatics.

Minerals and Rocks (Mr. T. Hodge Smith in charge).—Over 850 specimens were registered during the year, of which 519 consist of material collected by the Australasian Antarctic Expedition. As in former years Mr. D. A. Porter has presented a number of minerals from the New England District, New South Wales. A fine collection of moldavites from Bohemia were obtained by exchange with the Royal Bohemian Museum through the kindness of Dr. J. V. Danes. Much valuable material has been acquired by exchange with Mr. Inspector George Smith of the Department of Mines, and with Mr. W. T. Watkin Brown. An excellent group of calcite crystals from Belubula Caves, near Carcoar, New South Wales, has been presented by Miss Judy Hosie, and placed in the gallery. A collection of minerals containing a number of rare minerals from Broken Hill, New South Wales, has been purchased from Mrs. N. Newton of Petersham. A number of Italian minerals have been acquired by purchase.

Much time has been spent in working out the origin of the zeolites in the basalt at the Railway Quarry, Ardglen, New South Wales, and it is hoped that the work will soon be completed. The difficulty of procuring microscope slides is still a serious handicap to the work of the Department.

During the latter part of the year an effort to supply the need of schools for minerals and rocks has been made, and two hundred specimens have been distributed. Special thanks are due to Mr. D. A. Porter and the Broken Hill Proprietary for having very generously assisted by the donation of suitable material for this work.

"Mineralogical Notes, No. 1," is ready for the press.

Spirit-house Collections (Mr. F. A. McNeill in charge; Cadet W. Boardman, assistant).—The timely arrival of a purchase of glassware has allowed work in this section to advance unimpeded. Much work on the distribution of the collections has been taken in hand and periodical inspections have been made so that evaporation of spirit from the bottles may be prevented. The condition of the preservative and specimens contained in the large slate vats is excellent; no recurrence of the dreaded fungoid growths, which played such havoc some years ago, is apparent. A busy year has been experienced in the assembling and despatching of all kinds of collecting gear for use in the field by members of the Museum staff and interested outsiders.

11. ACQUISITIONS.

Department.	No. of Specimens.					
	Donation.	Exchange.	Purchase.	Collection.	Prepared.	Total.
<i>Vertebrates</i> —						
Mammals	139	9	22	45	.....	215
Birds	131	.....	.....	80	.....	211
Reptiles	99	1	.....	53	.....	153
Fishes	742	2	4	344	.....	1,092
Skeletons	36	.....	.....	1	.....	37
<i>Invertebrates</i> —						
Mollusca	1,628	31	20	350	.....	2,029
Insects, Arachnida	2,751	99	.....	788	.....	3,638
Crustacea	473	7	.....	320	.....	800
Lower Invertebrates	255	.....	.....	425	.....	680
<i>Geological</i> —						
Fossils	52	496	242	2	.....	792
Minerals	630	98	60	75	.....	863
<i>Ethnological, etc.</i> —						
Ethnological	419	85	86	362	.....	952
Historical ... ..	.....	.....	.....	.....	.....	73
Numismatical	53	8	12	.....	.....	.....
<i>Miscellaneous</i> —						
Micro sections	11	65	.....	.....	.....	76
Cast and Moulds	1	2	.....	.....	17	20
Negatives	5	.....	.....	.....	63	68
Lantern Slides ... ..	.....	.....	.....	.....	225	225
Photographs	12	.....	31	.....	3	46
Total	7,437	903	477	2,845	308	11,970

12. FINANCIAL.

Statement of Receipts and Expenditure for the year ended 30th June, 1923.

	Endow- ment Account.	Public Account.	Totals.		Endow- ment Account.	Public Account.	Totals.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.
Balance from last year ...	987 5 2		987 5 2	Salaries—			
Parliamentary Appropriations—				Director, and Principal Keeper of			
Salaries		13,213 8 0		Collections		1,558 0 2	
Contingencies		2,014 1 5		First-class Scientific Assistants		2,633 6 6	
Statutory Endowment	1,000 0 0		1,000 0 0	Cadets and General Assistants		729 9 0	
				Clerical Staff		1,280 3 0	
Sale of Publications—				Preparators and Mechanics		2,185 13 10	
Records	1 4 0			Attendants		2,924 13 7	
Post Cards	1 16 2						11,370 7 8
Nest and Egg Catalogue	7 10 0			Superannuation—			
Catalogues	0 16 0			Trustees' Contributions		1,259 14 4	
Memories	0 7 6			Employees' "		533 6 9	
Magazine	290 18 1						1,793 1 1
Magazine Advertisements	131 0 0			Contingencies—			
Miscellaneous—	32 18 9			Overtime and Sundays		442 10 6	
				Pensions		329 19 3	
Interest from—				Insurance		235 5 5	
Reserve Account	4 3 7			Building and Maintenance—			
Resumption Account	10 15 0			Cases		281 16 2	
Seventh War Loan	25 0 0			Repairs		138 4 7	
Peace Loan	20 0 0						1,427 15 11
City Council Deposit	124 9 6			Statutory and Additional Endow- ment—			
Transfers—				Working Expenses	520 7 11	343 5 11	
Resumption Account to Endow- ment Account	250 0 0			Purchase of Specimens	51 19 6	0 5 0	
City Council Deposit to Endow- ment Account	2,000 0 0			Tools and Plant	219 18 10	70 8 11	
				Catalogues, Publishing of—			
				Records	350 1 7		
				Magazine	406 18 1	88 11 0	
				Purchase of Books	157 13 9		
				Preservation of Specimens	152 19 6	24 19 6	
				Publicity and Advertising	85 16 6	21 5 2	
				Collecting and Travelling	79 10 10		
				Electric Light Installation	318 10 9		
				Miscellaneous	65 5 2		
				William-street Frontage Improve- ments	2,000 0 0		
							4,957 17 11
				Transfer Resumption Account to En- dowment Account	250 0 0		250 0 0
				Refund to Treasury		87 10 0	87 10 0
				Balance	231 1 4		231 1 4
£ 4,890 3 9	15,227 10 2	20,117 13 11					

List of Investments:—

	£	s.	d.
Seventh War Loan, at 5 per cent.	500	0	0
Peace Loan, at 5 per cent.	400	0	0
City Council Deposit	3,100	0	0

Examined and found correct,—

1st August, 1923.

N. BLACK,
Senior Inspector of Public Accounts.The Common Seal of the Museum was hereunto affixed by order
of the Board, this 2nd day of October, 1923.T. STORIE DIXSON, President.
C. ANDERSON, Director.

13. APPENDICES.

The following Appendices are attached, viz.:—

1. General Staff of the Australian Museum.
2. List of the Publications of the Australian Museum.
3. Catalogue of the Additions to the Library.

APPENDIX I.

General Staff of the Australian Museum at 30th June, 1923 :—

Name of Office.					Date of first appointment in the Museum.	Date of appointment to present position.
Miss C. M. J. Allan, Assistant in Conchology	...	...	...	...	5 Feb., 1917	5 Nov., 1920
Arthur A. Livingstone, Cadet	...	...	...	...	24 May, 1920	24 May., 1920
Thomas G. Campbell, Cadet	...	...	...	...	13 Dec., 1920	13 Dec., 1920
G. P. Whitley, Cadet	...	...	...	...	18 April, 1922	18 April, 1922
W. Boardman, Cadet	...	...	...	...	18 April, 1922	18 April, 1922
H. O. Fletcher, General Assistant	...	...	...	...	6 Aug., 1918	16 May, 1921
Wm. A. Rainbow, Librarian	...	...	...	...	13 July, 1902	1 Oct., 1916
F. D. McCarthy, Library Assistant	...	...	...	...	29 Mar., 1922	29 Mar., 1920
Jas. A. Trimble, Accountant, and Secretary to Director	...	...	...	...	1 July, 1909	1 Oct., 1916
T. A. Murphy, Clerk	...	...	...	...	1 May, 1911	1 Oct., 1916
H. Doyle, Messenger	...	...	...	...	16 May, 1922	16 May, 1922
Jas. W. Woodhead, Printer	...	...	...	...	27 Sept., 1897	27 Sept., 1897
Thos. A. Henson, Artificer	...	...	...	...	1 May, 1902	6 Oct., 1920
G. Chas. Clutton, Articulator	...	...	...	...	25 April, 1904	1 May, 1913
Henry S. Grant, Taxidermist	...	...	...	...	5 Oct., 1909	2 Mar., 1918
J. H. Wright, Assistant Taxidermist	...	...	...	...	13 May, 1908	5 Nov., 1917
Joseph Kingsley, Assistant Articulator	...	...	...	...	21 July, 1913	21 July, 1913
Herbert Jackson, Assistant Artificer	...	...	...	...	9 June, 1910	6 Oct., 1920
W. Barnes, Assistant Taxidermist	...	...	...	...	11 Feb., 1907	1 June, 1922
Arthur Barnes, Chief Attendant	...	...	...	...	7 Dec., 1897	1 July, 1922
T. Johnston, Senior do	...	...	...	...	13 Dec., 1915	1 July, 1922
Alexander Mackay, Attendant	...	...	...	...	13 Mar., 1915	1 July, 1922
E. T. Hill do	...	...	...	...	8 Oct., 1917	8 Dec., 1917
D. Massey do	...	...	...	...	8 Dec., 1917	4 Nov., 1918
A. B. Welsh do	...	...	...	...	4 Nov., 1918	10 Oct., 1921
E. G. Morris do	...	...	...	...	10 Oct., 1921	2 June, 1922
W. A. Medway do	...	...	...	...	2 June, 1922	13 Mar., 1915
F. L. Haylings do	...	...	...	...	1 July, 1922	1 July, 1922
H. W. Stein do	...	...	...	...	1 July, 1922	1 July, 1922
Mrs. K. Fraser do	...	...	...	...	1 April, 1889	1 April, 1889
John Watson, Night do	...	...	...	...	8 May, 1914	1 July, 1922
T. Glazebrook do do	...	...	...	...	11 Nov., 1922	11 Nov., 1922

The Trustees regret to report that Mardock Mackay, who had served faithfully as Night Attendant since September, 1915, died on 3rd November, having retired on 9th October on three months' leave. Mrs. K. Fraser, after a period of absence on half-pay, returned to duty as Woman Attendant on 10th May, replacing Miss G. E. Barnes, who had held the position since 1st July, 1922.

APPENDIX II.

List of Available Publications of the Australian Museum :—

I.—Annual Reports.

Nos. 28-33, 1881-6; 36-44, 1889-1897; 46-67, 1921.

II.—Catalogues.

4. Catalogue of the Australian Birds in the Australian Museum, by E. P. Ramsay. Part I, Accipitres, 1876. Part II, Striges, 1891. (Second edition, revised by A. J. North, 1898). Part III, Psittaci, 1891. Part IV, Halcyones, 1894.
6. Catalogue of the Library of the Australian Museum, 1883. With two Supplements.
7. Catalogue of a Collection of Fossils in the Australian Museum. With Introductory Notes by F. Ratte. 1883.
9. Descriptive Catalogue of the General Collection of Minerals in the Australian Museum, by F. Ratte. 1885.
10. Catalogue of Echinodermata in the Australian Museum, by E. P. Ramsay. Part I, Echini, 1885. Second edition, 1890.
13. Descriptive Catalogue of the Sponges of the Australian Museum, by R. von Lendenfeld. 1888.
14. Catalogue of the Fishes in the Australian Museum. Part I, Palæichthyan Fishes. By J. Douglas Ogilby. 1888.
15. Catalogue of the Marine Shells of Australia and Tasmania, by J. Brazier. Part I, Cephalopoda, 1892. Part II, Pteropoda, 1892. Part III, Gasteropoda (Murex), 1893.
16. Catalogue of Australian Mammals, with Introductory Notes on General Mammalogy, by J. Douglas Ogilby. 1892.
17. Descriptive Catalogue of the Tunicata in the Australian Museum, by W. A. Herdman. 1899.

III.—Special Catalogues.

1. Nests and Eggs of Birds found Breeding in Australia and Tasmania, by A. J. North. Vol. I, 1901-1904. Vol. II, 1906-1909. Vol. III, 1910-1912. Vol. IV, 1913-1915.

IV.—Monographs.

1. Australian Lepidoptera and their Transformations, by A. W. Scott, with illustrations by his daughters, Mrs. Morgan and Mrs. Forde, Vol. I, 1864. Vol. II, edited and revised by Mrs. Forde and A. S. Oliff, 1890-98.

V.—Memoirs.

1. History and Description of the Skeleton of a new Sperm Whale in the Australian Museum, by W. S. Wall. 1851.
3. The Atoll of Funafuti, Ellice Group: Its Zoology, Botany and General Structure, based on Collections made by C. Hedley. 1896-1900.
4. Scientific Results of the Trawling Expedition of H.M.C.S. "Thetis," off the Coast of New South Wales, in February and March, 1898. 1899-1914.

VI.—Records.

The Records contain descriptions of specimens, accounts of expeditions and other results of the scientific work of the Museum Staff.

Vol. iii, 1897-1900; vol. iv, 1901-3; vol. v, 1903-5; vol. vi, 1905-8; vol. vii, 1908-10; vol. viii, 1910-13; vol. ix, 1912-3; vol. x, 1913-5; vol. xi, 1916-7; vol. xii, 1917-21; vol. xiii, Nos. 1-6, 1920-3; vol. xiv, No. 1, 1923.

VIII.—Miscellaneous Publications.

1. List of Old Documents and Relics in the Australian Museum, 1884. Reprinted with additions. 1890.
2. Descriptive List of Aboriginal Weapons, Implements, etc., from the Darling and Lachlan Rivers, by K. H. Bennett. 1887.
4. Hints for the Collectors of Geological and Mineralogical Specimens, by F. Ratte.
5. Hints for the Preservation of Specimens of Natural History, by E. P. Ramsay. 1891. 4th Edition.
10. List of Museum Publications prepared and arranged by S. Sinclair, Secretary and Librarian, assisted by W. A. Rainbow, Assistant-Librarian. 1916.

IX.—The Australian Museum Magazine.

Vol. i, Nos. 4-8, 1922-3.

APPENDIX III.
ADDITIONS TO THE LIBRARY.

Reg. No.	Books.	How acquired.	Reg. No.	Books.	How acquired.
PART I.—AUTHORS.					
20322	AMEGHINO, Florentino. Obras completas y Correspondencia Científica. Volumen III. La Antigüedad del Hombre en el Plata. Dirigida por Alfredo J. Torcetti.		20296	GOULD, John. A Monograph of the Macropodidae, or Family of Kangaroos.	
	1 vol. 4to. La Plata, 1915.	Purchased		1 vol. Fol. London, 1841-42.	Purchased
20299-300	BARRETT, James W. The Twin Ideals, an Educated Commonwealth. Volumes I-II.		20383	GREGORY, William K. The Origin and Evolution of the Human Dentition.	
	2 vols. 8vo. London, 1918.	Presented		1 vol. Sm. 4to. Baltimore, 1922.	Purchased
20309-70	BRANDT, J. F. and J. T. C. RATZBURG. Medizinische Zoologie oder getreue Darstellung und Beschreibung der Thiere, die in der Arzneimittellehre in betracht kommen, in systematischer folge herausgegeben von . . . Bands I-II. Text and Plates.		20328	HALL, Robert. Australian Bird Maps.	
	2 vols. 4to. Berlin, 1829, 1833.	Presented by Dr. T. S. Dixon, President		1 vol. 8vo. Hobart, 1922.	Purchased
20349	BREARLEY, Harry. The Analytical Chemistry of Uranium.		20337	HARTMANN, J. D. W. Erd- und Süsswasser-Gasteropoden. Hefts 1-4.	
	1 vol. 8vo. London, &c., 1903.	Purchased		1 vol. 8vo. St. Gallen, 1840.	Purchased
20689	BREWSTER, A. B. Hill Tribes of Fiji.		20325	HECKEL, Johann J. Beiträge zur Kenntniss der Fossilen Fische Oesterreichs. Atlas (XV Tafeln).	
	1 vol. 8vo. London, 1922.	Purchased		1 vol. Fol. Wien, 1856.	Purchased
20415-19	BROWN, Robert. Science for All, Vols. I-V.		20301	IDDINGS, Joseph P. Igneous Rocks. Composition and Texture, Classification, description and occurrence. 1st Edition. Vol. II.	
	5 vols. 4to. London, Paris and New York, n.d.	Presented		1 vol. 8vo. New York, 1913.	Purchased
20695	BROWNE, Frank Balfour. Keys to the Orders of Insects.		20303	INGERSOLL, Ernest. Alaskan Bird-life as depicted by many writers. Edited by . . .	
	1 vol. 8vo. Cambridge, 1920.	Purchased		1 vol. 8vo. New York, 1914.	Presented
20350	CAROL, Jean. La Nouvelle-Calédonie Minière et Agricole.		20330	JACOBY, L. Der Fischfang in der Lagune von Camacchio nebst einer Darstellung der Aalfrage.	
	1 vol. 8vo. Paris, 1900.			1 vol. 8vo. Berlin, 1880.	Purchased
20297	CARPENTER, George H. Insect Transformation.		20376	JAMESON, A. Pringle. Report on the Diseases of Silkworms in India.	
	1 vol. 8vo. London, 1921.	Purchased		1 vol. 8vo. Calcutta, 1922.	Presented
20326	CHAMOT, Emile Monnon. Elementary Chemical Microscopy. Second Edition.		20381	JOB, Robert K. How to Study Birds: a practical guide for amateur bird-lovers and camera-hunters.	
	1 vol. 8vo. New York, 1921.	Purchased		1 vol. 8vo. New York, 1922.	Purchased
20350	CHESTER, Albert H. A Dictionary of the Names of Minerals, including their Etymology and History. 1st Edition.		20340	KEMP, James F. A Handbook of Rocks for use without the Microscope. With a glossary of the names of rocks and of other lithological terms. 4th Edition, revised.	
	1 vol. 8vo. New York, 1896.	Purchased		1 vol. 8vo. New York, 1908.	Purchased
20328a	CLARKE, John M. Organic Dependence and Disease: their origin and significance.		20331	KIRKALDY, G. W. Catalogue of the Hemiptera (Heteroptera) with biological and anatomical references, lists of food plants and parasites, &c. Prefaced by a discussion on nomenclature, and analytical table of families. Vol. I. Cimicidae.	
	1 vol. 8vo. New Haven, 1921.	Purchased		1 vol. 8vo. Berlin, 1909.	Presented
20339	COLLES, George W. Mica and the Mica Industry.		20691	KLAATSCH, Herman. The Evolution and Progress of Mankind by . . . Edited and enlarged by Prof. Adolf Heilborn, translated by Joseph McCabe.	
	1 vol. 8vo. Philadelphia, 1906.	Purchased		1 vol. 8vo. London, 1923.	Purchased
20306	CORSER, H. P. Totem Lore of the Alaska Indians.		20366	LAVIS, Henry J. Johnston. Bibliography of the Geology and Eruptive Phenomena of the more important volcanoes of Southern Italy. Compiled with the assistance of Madame Antonia Johnston-Lavis. 2nd Edition, completed after the author's death by Miss B. M. Stanton, and edited with a preface and short life of the author by B. B. Woodward.	
	1 vol. 8vo. Juneau, n.d.	Presented by Mr. C. Hedley.		1 vol. 4to. London, 1918.	Presented
20569	CROSS, Whitman, and others. Quantitative Classification of Igneous Rocks, by Whitman Cross, Joseph P. Iddings, Louis V. Pirsson, and Henry S. Washington, with an introductory review of the development of systematic petrography in the nineteenth century by Whitman Cross.		20295	LEONARDI, Gustavo. Monografia delle Cocciniglie Italiane. Opera Postuma, edizione curata e accresciuta di un'appendice dal Prof. F. Silvestri.	
	1 vol. 8vo. Chicago and London, 1903.	Purchased		1 vol. 8vo. Portici, 1920.	Purchased
20367	D'ORBIGNY, Alcide. Mollusques, par Alcide D'Orbigny. (Histoire Physique, politique et naturelle de l'île de Cuba par Ramon de la Sagra.) Tome Second.		20341	LESSING, F. Loewinson. Tables for the Determination of the Rock-forming Minerals. Translated from the Russian by J. W. Gregory, with a chapter on the Petrological Microscope by Prof. Grenville A. J. Cole.	
	1 vol. 8vo. Paris, 1853.	Purchased		1 vol. 8vo. London and New York, 1893.	Purchased
20380	FRAZER, James G. The Belief in Immortality, and the Worship of the Dead. Vol. II. The Belief among the Polynesians.		20453-55	MAIDEN, J. H. A Critical Revision of the Genus Eucalyptus. Vols. III-V, parts 21-50.	
	1 vol. 8vo. London, 1922.	Purchased		3 vols. 4to. Sydney, 1914-21.	Presented
20324	GERMAIN, Louis. Faune Malacologique Terrestre et Fluviale des Iles Mascareignes. (Mission Zoologique de M. Paul Carie aux Iles Mascareignes.)		20451-52	— The Forest Flora of New South Wales. Vols. VI-VII, parts 51-70.	
	1 vol. 8vo. Angers, 1921.	Presented		2 vols. 4to. Sydney, 1913-1922.	Presented
20323	— Mollusques Terrestres et Fluviales de Syrie. Tome I. Introduction et Gasteropodes. (Voyage Zoologique d'Henri Gaden de Kerville en Syrie (Avril-Juin, 1908, Tome II.)		20387	MALINOWSKI, Bronislaw. Argonauts of the Western Pacific: an account of native enterprise and adventure in the Archipelagoes of Melanesian New Guinea, by . . . with a preface by Sir James G. Frazer.	
	1 vol. 8vo. Paris, 1921.	Presented		1 vol. Sm. 4to. London, 1922.	Purchased
20382	GOLDSMITH, William M. The Laws of Life, Principles of Evolution, Heredity and Eugenics.				
	1 vol. 8vo. Boston, 1922.	Purchased			

Reg. No.	Books.	How acquired.	Reg. No.	Books.	How acquired.
20304	MAXWELL, C. N. <i>Malayan Fishes.</i> 1 vol. 8vo. Singapore, 1921.	Presented	20320	WOOD, J. G. <i>The Common Objects of the Sea-Shore including Hints for an Aquarium.</i> With illustrations by J. G. Sowerby. 1 vol. 8vo. London, 1857.	Presented by Mr. C. Hedley.
20342	MELLOR, J. W. <i>Modern Inorganic Chemistry.</i> 1 vol. 8vo. London, &c., 1912.	Purchased	PART II.—PERIODICALS.		
20343	MERRILL, George P. <i>A Treatise on Rocks, Rock-weathering and Soils.</i> 1 vol. 8vo. New York, 1897.	Purchased	INTERNATIONAL.		
20344	MOSES, Alfred J. <i>The Character of Crystals. An introduction to Physical Crystallography.</i> 1 vol. 8vo. New York, 1899.	Purchased	20694	INTERNATIONAL CONGRESS OF ZOOLOGY. IXe Congrès Internationale Zoologie Tenu à Monaco du 25 Au 30 Mars 1913. 1 vol. 8vo. Rennes, 1914.	Purchased
20329	OSLER, William. <i>The Evolution of Modern Medicine, a series of lectures delivered at Yale University on the Silliman Foundation in April, 1913.</i> 1 vol. 8vo. New Haven, 1921.	Purchased	COMMONWEALTH OF AUSTRALIA.		
20302	PATTON, Walter S. and Francis W. CRAGG. <i>A textbook of Medical Entomology.</i> 1 vol. 8vo. London, Madras and Calcutta, 1913.	Purchased	20420	ADVISORY COUNCIL OF SCIENCE AND INDUSTRY. Bulletin, Vol. I, Nos. 1-11. 1 vol. 8vo. Melbourne, 1917-19.	Presented
20293-94	PEARCE, E. K. <i>Typical Flies, a Photographic Atlas of Diptera, including Aphaniptera. 1st and 2nd Series, 1915, 1921.</i> 2 vols. 8vo. Cambridge, 1915-21.	Purchased	20333	AUSTRALASIAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE. Handbook of Sydney. For the use of the members of the . . . Edited by William M. Hamlet. Sydney meeting, 1888. 1 vol. 8vo. Sydney, 1883.	Presented
20696-97	PHISALIX, Marie. <i>Animaux Venimeux et Venins. La fonction venimeuse chez tous les animaux; les appareils venimeux, les venins et leurs propriétés; les fonctions et usages des venins; l'envenimation et son traitement.</i> 2 vols. 8vo. Paris, 1922.	Purchased	20432	PROCEEDINGS, New Series, Nos. 6-11. 1912-13.	
20700	PIAGET, E. <i>Les Pediculines essai Monographique. I. Texte, 1880.</i>		20433	" 12-16 and index to end of 1914.	
20701	II. Planches, 1889.		20434	" 17-28, 1915-17.	
20702	III. Supplement, 1885.		20435	" 29-33, 1918-20.	
20690	PYCRAFT, W. P. <i>A History of Birds. (Second volume of a series of four, entitled "Animal Life.")</i> 1 vol. 8vo. London, 1910.	Purchased	20436	" 40-46, 1920-22. (The title changed to "Australasian Institute of Mining and Metallurgy," with No. 34 of this series.) In 5 vols. 8vo. Melbourne, 1912-22.	Purchased
20385-86	SARASIN, Fritz, and Jean ROUX. <i>Anthropologie der Nova-Caledonier und Loyalty-Inlander. C. Anthropologie. Text and Atlas.</i> 2 vols. 4to, 8vo. Berlin, 1916-22.	Purchased	20377	COMMONWEALTH BUREAU OF CENSUS AND STATISTICS. Official Year-book of the Commonwealth of Australia, No. 15, 1922. 1 vol. 8vo. Melbourne, 1922.	Presented
20345	SEAMON, W. H. <i>A Manual for Assayers and Chemists. 1st Edition.</i> 1 vol. 8vo. New York, 1910.	Purchased	COMMONWEALTH INSTITUTE OF SCIENCE AND INDUSTRY.		
	SEMON, Richard. <i>Zoologische Forschungsreisen in Australien und ein Malayischen Archipel. (Denkschriften der Medizinisch-Naturwissenschaftlichen Gesellschaft zu Jena.)</i>		20437	Science and Industry, Vol. I, 1919.	
29412	Band I. <i>Ceratodus</i> , Lief. 1-6, 1893-1913.		20438	" II, 1919-1921.	
20413	I. " 7 and Atlas.		COMMONWEALTH OF AUSTRALIA. Historical Records of Australia.		
20414	IV. <i>Morphologie verschiedener Wirbeltiere</i> , Lief. 1-7. 1894-1912. 3 vols. Fol. Jena, 1893-1913.	Purchased	Series I, Governors' Despatches to and from England.		
20429	"TE WHARE." <i>A Bush Cinema.</i> 1 vol. 8vo. Sydney, 1922.	Presented	20307	Vol. XIV, March, 1828—May, 1829.	
20346	THOMAS, H. H. and D. A. MACALISTER. <i>The Geology of Ore Deposits. (Arnold's Geological Series).</i> 1 vol. 8vo. London, 1909.	Purchased	20420	XV, June, 1829—December, 1830. 2 vols. 8vo. Melbourne, 1922.	Presented
20319	THOMSON, Geo. M. <i>The Naturalisation of Plants and Animals in New Zealand.</i> 1 vol. 8vo. Cambridge, 1922.	Purchased	Series III, Despatches and Papers relating to the States.		
20347	WASHINGTON, Henry S. <i>Manual of the Chemical Analysis of Rocks. 1st Edition.</i> 1 vol. 8vo. New York, 1906.	Purchased	20508	Vol. VI. Tasmania, April-December, 1827. West Australia, March, 1826—January, 1830. Northern Territory, August, 1824—December, 1829. 1 vol. 8vo. Melbourne, 1923.	Presented
20355	WEBER, Max and L. F. de BEAUFORT. <i>The Fishes of the Indo-Australian Archipelago. IV. Heteromi, Solenichthyes, Syntognathi, Percosoces, Labyrinthici, Microcyprini.</i> 1 vol. 8vo. Leiden, 1922.	Purchased	20446	DEPARTMENT OF EXTERNAL AFFAIRS. Bulletin of the Northern Territory, Nos. 1-13, March, 1912—August, 1915. 1 vol. 4to. Melbourne, 1912-15.	Presented
20348	WILLIAMS, Edward H. <i>Manual of Lithology: treating the principles of science with special reference to Megascopic Analysis. 2nd Edition, 1st thousand.</i> 1 vol. 8vo. New York, 1899.	Purchased	ROYAL AUSTRALASIAN ORNITHOLOGISTS' UNION.		
20602	WILLIS, J. C. and others. <i>Age and Area, by J. C. Willis, with chapters by Hugo de Vries, H. B. Guppy, Mrs. Reid, and James Small.</i> 1 vol. 8vo. Cambridge, 1922.	Purchased	20439	The Emu, Vols. XV-XVI. 1915-17.	
			20440	XVII-XVIII. 1917-19.	
			20441	XIX-XX and Index to I-XX. 1919-21.	
			20442	XXI-XXII. 1921-23.	
			20445	4 vols. 8vo. Melbourne, 1915-23.	Purchased
			SCIENTIFIC AUSTRALIAN, The. Vols. XXII-XXVII.		
			1 vol. 8vo. Sydney, 1916-22.		
			NEW SOUTH WALES.		
			20447-49	AGRICULTURE, DEPARTMENT OF. The Agricultural Gazette, Vols. XXIX-XXXII.	Presented
			20541	4 vols. 8vo. Sydney, 1918-22.	
			20332	Miscellaneous Publication, No. 238. Insect and Fungus diseases of Fruit-trees and their Remedies: with notes on the treatment of some Garden and Vegetable Pests. Compiled by Allen, Blunno, Froggatt and Guthrie. 1 vol. 8vo. Sydney, 1899.	Presented

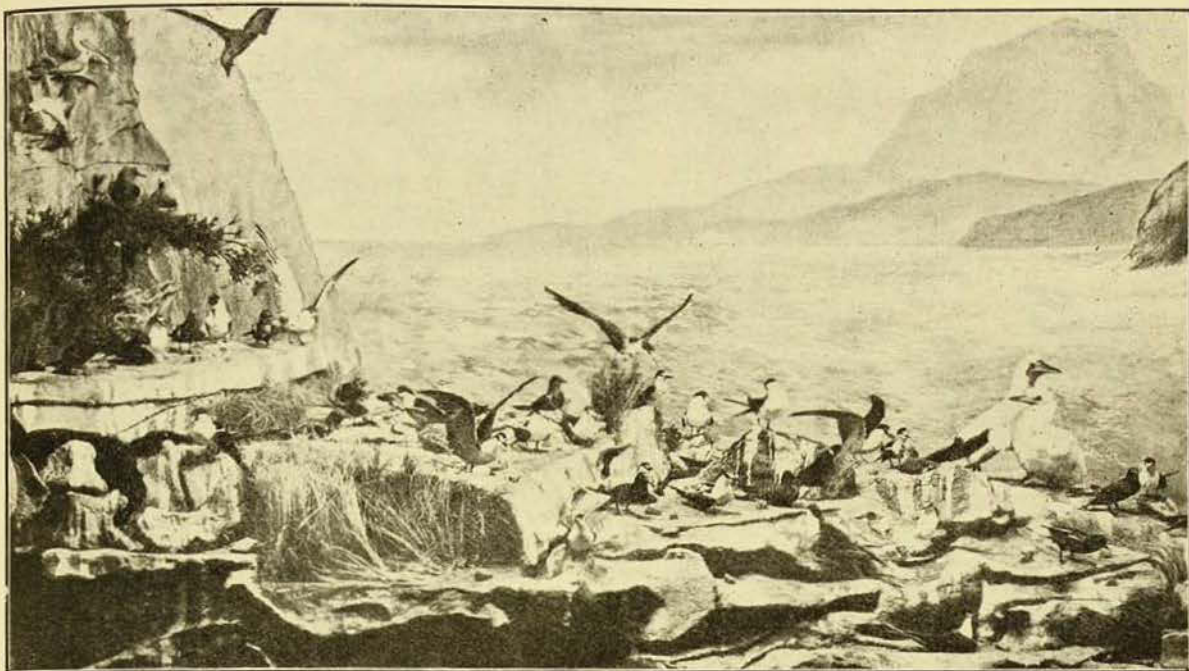
Reg. No.	Books.	How acquired.	Reg. No.	Books.	How acquired.
20456	AUSTRALIAN FORESTRY JOURNAL, The. Vols. I-III.		20489	PRICKLY-PEAR TRAVELLING COMMISSION. 1st Report, 1st November, 1912-30th April, 1914.	
20460	AUSTRALIAN HISTORICAL SOCIETY. Journal and Proceedings, vols. I-II, 1931-37.	1 vol. 8vo. Sydney, 1918-20. Presented		1 vol. Fol. Brisbane, 1914. Presented	
20453	AUSTRALIAN MUSEUM. Annual Reports, 1901-1920.	1 vol. 8vo. Sydney, 1901-07. Presented		ROYAL GEOGRAPHICAL SOCIETY OF AUSTRALASIA (QUEENSLAND BRANCH).	
20426	—Records, vol. XII, 1917-21.	1 vol. Fol. Sydney, 1931-1922. Presented	20438	Queensland Geographical Journal, Vols. XXVI-XXXVII.	
	INSTITUTION OF SURVEYORS OF NEW SOUTH WALES.	1 vol. 8vo. Sydney, 1917-21. Presented		1 vol. 8vo. Brisbane, 1910-22. Presented	
20314	The Surveyor, Vols. XXV-XXVI. 1912-1913.			SOUTH AUSTRALIA.	
20615	XXVII-XXVIII. 1914-1915.		20491	AGRICULTURE, DEPARTMENT OF. Journal, Vol. XIX, 1915-16.	
20616	XXIX-XXXI. 1916-1918.		20492	XX, 1916-1917.	
	3 vols. 8vo. Sydney, 1912-18. Presented		20493	XXII, 1918-1919.	
	LINNEAN SOCIETY OF NEW SOUTH WALES.		20495	XXIII, 1919-1920.	
20388	Proceedings, Vol. XLVI. 1921.		20494	XXIV, 1920-1921.	
20389	XLVII. 1922.		20496	XXV, 1921-1922.	
	2 vols. Sm. 4to. Sydney, 1921-22. Presented			In 6 vols. 8vo. Adelaide, 1915-22. Presented	
20459	MINES, DEPARTMENT OF. Annual Reports, 1913-1916.		20499	GEOLOGICAL SURVEY. Bulletins Nos. 1-9.	
	1 vol. Fol. Sydney, 1914-17. Presented			1 vol. 8vo. Adelaide, 1912-19. Presented	
20338	—Memoirs, Ethnological Series No. 3. The Dendroglyphs, or "Carved Trees" of New South Wales, by R. Etheridge, jun.		20497	MINES, DEPARTMENT OF. A Review of mining operations, Nos. 5-20, 1906-1916.	
	1 vol. 4to. Sydney, 1918. Presented		20498	" 25-36, 1917-22.	
20472	—Mineral Resources, No. 27. The Hill End-Tambora Goldfield, by L. F. Harper.			2 vols. 8vo. Adelaide, 1906-22. Presented	
	1 vol. 8vo. Sydney, 1918. Presented			ROYAL GEOGRAPHICAL SOCIETY OF AUSTRALIA (SOUTH AUSTRALIAN BRANCH).	
20461	NATURALISTS' SOCIETY OF NEW SOUTH WALES. The Australian Naturalist, Vols. I-III.		20503	Proceedings, vols. XII-XVI, 1910-1915.	
	1 vol. 8vo. Sydney, 1910-17. Presented			1 vol. 8vo. Adelaide, 1912-16. Presented	
20457	PUBLIC HEALTH, DIRECTOR OF. Reports, 1913-1916.		20502	ROYAL SOCIETY OF SOUTH AUSTRALIA. Transactions and Proceedings, vols. XLIV-XLV, 1920-21.	
20458	1917-1920.			XLVI. 1922.	
20462	PUBLIC INSTRUCTION, DEPARTMENT OF. Reports of the Minister, 1911-1912.		20503	" 2 vols. 8vo. Adelaide, 1920-22. Presented	
	1 vol. Fol. Sydney, 1912-13. Presented		20501	—Index to the Transactions, Proceedings and Reports, volumes XXV-XLIV, 1901-1920, and to the Memoirs, volumes 1-II, 1899-1912.	
	ROYAL SOCIETY OF NEW SOUTH WALES. Journal and Proceedings.			1 vol. 8vo. Adelaide, 1922. Presented	
20390	Vols. XLIX-L. 1915-1916.		20500	SCHOOL OF MINES AND INDUSTRIES. Annual Reports and Prospectus for the years 1913-1917.	
20391	LII. 1918.			1 vol. 8vo. Adelaide, 1914-17. Presented	
20392	LIII-LIV. 1919-1920.		20504	SOUTH AUSTRALIAN MUSEUM. Records, Vol. I.	
	3 vols. 8vo. Sydney, 1915-20. Presented			1 vol. Sm. 4to. Adelaide, 1918-21. Presented	
20463	ROYAL ZOOLOGICAL SOCIETY OF NEW SOUTH WALES. The Australian Zoologist, vols. I-II, 1914-20. (Bound in—Report of the Taronga Zoological Park Trust for 1913.)		20515	SURVEYOR-GENERAL. Report for the years 1909-1910.	
	1 vol. 4to. Sydney, 1913-20. Presented			1 vol. Fol. Adelaide, 1910. Presented	
	TRADE AND CUSTOMS, DEPARTMENT OF. Zoological Results of the Endeavour.			TASMANIA.	
20443	Vol. III, 1915.		20506	AGRICULTURE, DEPARTMENT OF. Agricultural Gazette, vol. XXIII.	
20444	IV, 1916-1918.			1 vol. 8vo. Hobart, 1915. Presented	
	2 vols. 8vo. Sydney, 1915-18. Presented			GEOLOGICAL SURVEY OF TASMANIA.	
20384	UNIVERSITY OF SYDNEY. List of current Periodical Publications received by the Fisher Library, December, 1922.		20512	Bulletin, vols. XV-XIX, 1914-1915.	
	1 vol. 4to. Sydney, 1922. Presented		20513	" XX-XXIII, 1915.	
20331	YEAR-BOOK. The Official Year-book of New South Wales, 1921.		20514	" XXIV-XXXI, 1915-1919.	
	1 vol. 8vo. Sydney, 1922. Presented			3 vols. 8vo. Hobart, 1914-19. Presented	
	QUEENSLAND.		20507	ROYAL SOCIETY OF TASMANIA. Papers and Proceedings, 1919-1921.	
	AGRICULTURE AND STOCK, DEPARTMENT OF. Queensland Agricultural Journal.			1 vol. 8vo. Hobart, 1920-22. Presented	
20477	Vols. V-VI, New Series, 1916.			VICTORIA.	
20478	VII-VIII, 1917.		20465	AGRICULTURE, DEPARTMENT OF. Journal, vol. XIV, 1916.	
20479	IX-X, 1918.		20466	" XV, 1917.	
20480	XI-XII, 1919.		20467	" XVI, 1918.	
20481	XIII-XIV, 1920.		20468	" XVII, 1919.	
20482	XV-XVI, 1921.			4 vols. 8vo. Melbourne, 1916-20. Presented	
20483	XVII-XVIII, 1922.		20464	FIELD NATURALISTS' CLUB OF VICTORIA. The Victorian Naturalist, vols. XXXVIII-XXXIX.	
	In 7 vols. 8vo. Brisbane, 1916-22. Presented			1 vol. 8vo. Melbourne, 1921-22. Presented	
20568	MINES, DEPARTMENT OF. Annual Reports of the Under-Secretary for the years 1914, 1918.		20474	GEELOG FIELD NATURALISTS' CLUB. The Geelong Naturalist, Second Series, vols. III-VI.	
20190	2 vols. Fol. Brisbane, 1915, 1919. Presented			1 vol. 8vo. Geelong, 1906-16. Presented	
			20475	GEOLOGICAL SURVEY OF VICTORIA. Records, vol. III.	
				1 vol. 8vo. Melbourne, 1909-16. Presented	

Reg. No.	Books.	How acquired.	Reg. No.	Books.	How acquired.
VICTORIA—(continued):			20471	Report of the 90th Meeting, Hull, September 6-13th, 1922. 2 vols. 8vo. London, 1920-23. Purchased	
20484	MINES, DEPARTMENT OF. Annual Reports, 1912-1915. 1 vol. Fol. Melbourne, 1913-16. Presented		20547	BRITISH MUSEUM. A Guide to the Antiquities of the Stone Age in the Department of British Mediaeval Antiquities, 2nd edition. 1 vol. 8vo. London, 1911. Presented	
20485	—Bulletins, Nos. 30-38. 1 vol. 8vo. Melbourne, 1914-16. Presented		20550	BRITISH MUSEUM (NATURAL HISTORY). Guide to the specimens of the Horse Family (Equidae) exhibited in the Department of Zoology. 1 vol. 8vo. London, 1907. Presented	
20487	ROYAL GEOGRAPHICAL SOCIETY OF AUSTRALIA (VICTORIAN BRANCH). Victorian Geographical Journal, vols. XXII-XXX, 1904-1912. 1 vol. 8vo. Melbourne, 1905-13. Presented		20354	Catalogue of the Books, Manuscripts, Maps and Drawings in the volume VI, Supplement A-I. 1 vol. 4to. London, 1922. Presented	
20397	ROYAL SOCIETY OF VICTORIA. Proceedings, vols. XXXII-XXXIV. 1 vol. 8vo. Melbourne, 1919-22. Presented		20352	Catalogue of the Fossil Bryozoa (Polyzoa), in the— The Cretaceous Bryozoa (Polyzoa), Volume IV. The Cribrimorphs—Part II, by W. D. Lang. 1 vol. 8vo. London, 1922. Presented	
20486	ROYAL ZOOLOGICAL AND ACCLIMATISATION SOCIETY OF VICTORIA. Annual Reports, XL-LVIII, 1904-1921. 1 vol. 8vo. Melbourne, 1905-22. Presented		20353	Catalogue of the Selous Collection of Big Game in the Department of Zoology, by J. G. Dollman. 1 vol. 8vo. London, 1921. Presented	
WESTERN AUSTRALIA.			20597	Guide to the Gallery of Fishes. 1 vol. 8vo. London, 1908. Presented	
20516	MINES, DEPARTMENT OF. Annual Reports, 1913-1916.		20549	Guide to the Elephants (Recent and Fossil) exhibited in the Department of Geology and Palaeontology. 1 vol. 8vo. London, 1908. Presented	
20517	" 1917-1920. 2 vols. Fol. Perth, 1914-21. Presented		20548	A Handbook of British Mosquitoes, by William D. Lang. 1 vol. Sm. 4to. London, 1920. Presented	
DOMINION OF NEW ZEALAND.			20351	Monograph of the Lacertidae, by George A. Boulenger, Volume II. 1 vol. 8vo. London, 1921. Presented	
20521	BOARD OF SCIENCE AND ART. Journal of Science and Technology, Vols. I-II, 1918-1919.		20535	BRITISH ORNITHOLOGISTS' UNION. The Ibis, 10th Series, vol. IV, 1916.	
20522	" " vols. III-IV, 1920-1921. 2 vols. 8vo. Wellington, 1918-22. Presented		20536	" " v, 1917.	
20519	DOMINION MUSEUM. Bulletins, Nos. 1-5. (No. 1 was issued as the Colonial Museum Bulletin.) 1 vol. 4to. Wellington, 1906-16. Presented		20337	" 11th " I, 1919.	
20518	FISHERIES. Official Papers. Reports on Experimental Trawling, 1900-1901, 1907-1908. Reports on Fisheries of N.Z., 1913-1914. Fisheries Act, 1908, No. 65. Analysis, 1908, No. 254, 1912, 49, 1914, 31. Regulations under the "Sea-fisheries Act, 1894." Amendments and Regulations of Fisheries Act, from 1907 to 1918. In 1 vol. Fol. New Zealand, 1900-18. Presented		20538	" " II, 1920.	
20520	GEOLOGICAL SURVEY. Bulletin Nos. 18-23. 1 vol. 4to. Wellington, 1917-21. Presented		20539	" " III, 1921.	
PAPUA.			20540	" " IV, 1922. 6 vols. 8vo. London, 1916-22. Purchased	
20476	ADMINISTRATOR'S Report on Papua for the years 1912-1917. 1 vol. Fol. Melbourne, 1912-18. Presented		20534	The Ibis, Jubilee Supplement No. 2, 10th Series, 1915. 1 vol. 8vo. London, 1915. Purchased	
UNITED KINGDOM.			20593	CONCHOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND. Journal of Conchology, vols. XV-XVI. 1 vol. 8vo. London, 1916-22. Presented	
London.			20551	EGYPT EXPLORATION FUND. Archaeological Report comprising the work of the . . . and the progress of Egyptology during the year 1911-12. 1 vol. 4to. London, 1912. Presented	
20542	AGRICULTURE, BOARD OF— Journal, vol. XXV, 1918-1919.		20552	EGYPT EXPLORATION SOCIETY. Journal, vols. I-II, 1914-1915.	
20543	" " XXVI, 1919-1920.		20553	" " III-IV, 1916-1917.	
20544	" " XXVII, 1920-1921.		20554	" " V-VI, 1918-1920. 3 vols. 4to. London, 1914-20. Presented	
20545	" " XXVIII, 1921-1922.		20555	—Miscellaneous publications. 1. Memorandum of Articles of Association. 2-3. Catalogues of Exhibition of Antiquities and Papyri found in the XIth Dynasty Temple at Deir El-Bahari and at Oxyrhynchus. Catalogue of Exhibition of Antiquities found at— 4. Abydos and Mahasna. 5. Aftieh. 6. Sidmant, &c. 7. The proposed Excavations at Tell-el-Amarna. In 1 vol. 8vo. London, 1906-20. Presented	
20546	" " XXIX, 1922-1923. 5 vols. 8vo. London, 1918-23. Presented		20562	ENTOMOLOGICAL SOCIETY OF LONDON. Transactions for 1915.	
20393	ANNALS AND MAGAZINE OF NATURAL HISTORY, including Botany, Zoology and Geology.— Ninth Series, vol. VIII, July-Dec., 1921.		20563	" " 1916.	
20394	" " IX, Jan. June, 1922.		20564	" " 1917.	
20421	" " X, July-Dec., 1922. 3 vols. 8vo. London, 1921-22. Purchased		20565	" " 1918.	
20523	AUSTRAL AVIAN RECORD. Vols. III-IV. 1 vol. Sm. 4to. London, 1915-22. Purchased		20566	" " 1920.	
20524	AVICULTURAL SOCIETY.— Avicultural Magazine, vol. VII, 1915-1916.		20567	" " 1921. 6 vols. 8vo. London, 1915-21. Purchased	
20525	" " " VIII, 1916-1917.				
20526	" " " IX, 1917-1918.				
20527	" " " X-XI, 1918-1920.				
20528	" " " XII-XIII, 1921-22. 5 vols. 8vo. London, 1915-22. Purchased				
20473	BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE. Report of the 88th Meeting, Cardiff, August 24-28th, 1920.				

Reg. No.	Books.	How acquired.	Reg. No.	Books.	How acquired.
20635	OXFORD UNIVERSITY MUSEUM. Catalogue of books added to the Radcliffe Library, 1900-1916. 1 vol. 4to. Oxford, 1901-17. Presented			BRITISH DOMINIONS.	
20634	PLYMOUTH INSTITUTION AND DEVON AND CORNWALL NATURAL HISTORY SOCIETY. Annual Report and Transactions, vol. xv, 1909-1915. 1 vol. 8vo. Plymouth, 1911-18. Presented		20309	MADRAS FISHERIES DEPARTMENT. Bulletin No. 13. Remarks on Canning and Manufacture of Fish Oil and Guano, by F. A. Nicholson. 1 vol. 8vo. Madras, 1922. Presented	
20617	TRING MUSEUM. Novitates Zoologicae, vol. xxviii, 1921.		20427	— Bulletin, No. 14. Madras Fishery Investigations. Second series. 1 vol. 8vo. Madras, 1922. Presented	
20618	2 vols. 4to. London and Avebury, 1921-23. Presented			Canada.	
20619	UNIVERSITY OF LIVERPOOL. Annals of Archaeology and Anthropology, vols. vii-viii. 1 vol. 8vo. Liverpool and London, 1914-21. Presented		20658	CANADIAN ENTOMOLOGIST, THE. Vols. XLIX-L, 1917-1918.	
20630	YORKSHIRE GEOLOGICAL SOCIETY. Proceedings, vol. xvii, 1909-1911. 1 vol. 8vo. York, 1910-12. Presented		20659	" LI-LII, 1919-1920.	
20628	YORKSHIRE PHILOSOPHICAL SOCIETY. Annual Reports, 1907-1913.		20660	" LIII-LIV, 1921-1922. 3 vols. 8vo. Ontario, 1917-22. Purchased	
20629	1914-1918. 2 vols. 8vo. York, 1908-19. Presented			EDUCATION, MINISTER OF. Ontario. For years	
	IRISH FREE STATE.		20679	Annual Archaeological Reports 1908-11.	
20652	AGRICULTURE AND TECHNICAL INSTRUCTION, DEPARTMENT OF. Scientific Investigations, 1912-1914.		20680	" " " 1914.	
20653	" " 1906, Part II. 2 vols. 8vo. Dublin, 1913-21. Presented		20681	" " " 1915.	
20654	ROYAL DUBLIN SOCIETY. Scientific Proceedings, New Series. Vol. xiv, 1913-1915.		20682	" " " 1917.	
20655	" xv, 1916-1920.		20683	" " " 1918.	
20656	" xvi, 1920-1922. 3 vols. 4to. Dublin, 1913-22. Presented		20684	" " " 1919.	
20657	—Scientific Transactions, Series II. Vol ix. 1 vol. 8vo. Dublin, 1916-20. Presented		20685	" " " 1920.	
	SCOTLAND.		20686	" " " 1921-22. 8 vols. 8vo. Ottawa, 1914-22. Presented	
20646	EDINBURGH GEOLOGICAL SOCIETY. Transactions. Vol. ix, Sessions 1905-1910.		20305	INTERIOR, DEPARTMENT OF THE. Description of and Guide to Jasper Park. 1 vol. 8vo. Ottawa, 1917. Presented by Mr. C. Hedley.	
20648	" x, " 1910-1915. 2 vols. 8vo. Edinburgh, 1912-16. Presented			MINES, DEPARTMENT OF. Geological Survey Memoirs.	
20645	FISHERY BOARD FOR SCOTLAND. Annual Reports, xxxiv-xxxix, 1915-1920. 1 vol. 8vo. Edinburgh, 1916-21. Presented		20668	Vols. XLVIII-LII, 1914-1915.	
20647	NATURAL HISTORY SOCIETY OF GLASGOW. The Glasgow Naturalist. Vols. v-vii. 1 vol. 8vo. Glasgow, 1912-15. Presented		20669	" LIII-LV, 1914.	
20636	PERTHSHIRE SOCIETY OF NATURAL SCIENCES. Transactions and Proceedings. Vol. v, 1908-1914.		20670	" LVI-LVIII, 1914-1915.	
20637	" vi, 1913-1918. 2 vols. 8vo. Perth, 1909-19. Presented		20671	" LXXII-LXXV, 1915.	
20643	ROYAL PHYSICAL SOCIETY OF EDINBURGH. Proceedings. Vols. XLIV-XLVI, 1912-1915.		20672	" LXXVI-LXXVII, 1915.	
20644	" XLVII-XLIX, 1915-1918. 2 vols. 8vo. Glasgow, 1913-18. Presented		20673	" LXXXVIII-LXXX, 1915.	
20638	ROYAL SCOTTISH GEOGRAPHICAL SOCIETY. Scottish Geographical Magazine. Vol. xxxii, 1916.		20674	" LXXXI-LXXXIII, 1915-1916.	
20639	" xxxiii, 1917.		20675	" LXXXIV-LXXXVII, 1916.	
20640	" xxxiv, 1918.		20676	" LXXXVIII-XCI, 1916.	
20641	" xxxv, 1919.		20677	" XCI-XCV, 1916-1917.	
20642	" xxxvi-xxxvii, 1920-1921. 5 vols. 8vo. Edinburgh, 1916-21. Presented		20678	" XCVI-XCIX, 1917. 11 vols. 8vo. Ottawa, 1914-17. Presented	
20649	ROYAL SOCIETY OF EDINBURGH. Transactions. Vol. I, Sessions 1913-1915.		20666	—Museum Bulletin, Nos. 9-20, 1915.	
20650	" II, 1914-1917.		20667	" " 21-30, 1915-19.	
20651	" III, 1918-1921. 3 vols. 4to. Edinburgh, 1914-21. Presented		20665	—Geological Survey Summary Reports, 1913-16. 1 vol. 8vo. Ottawa, 1914-17. Presented	
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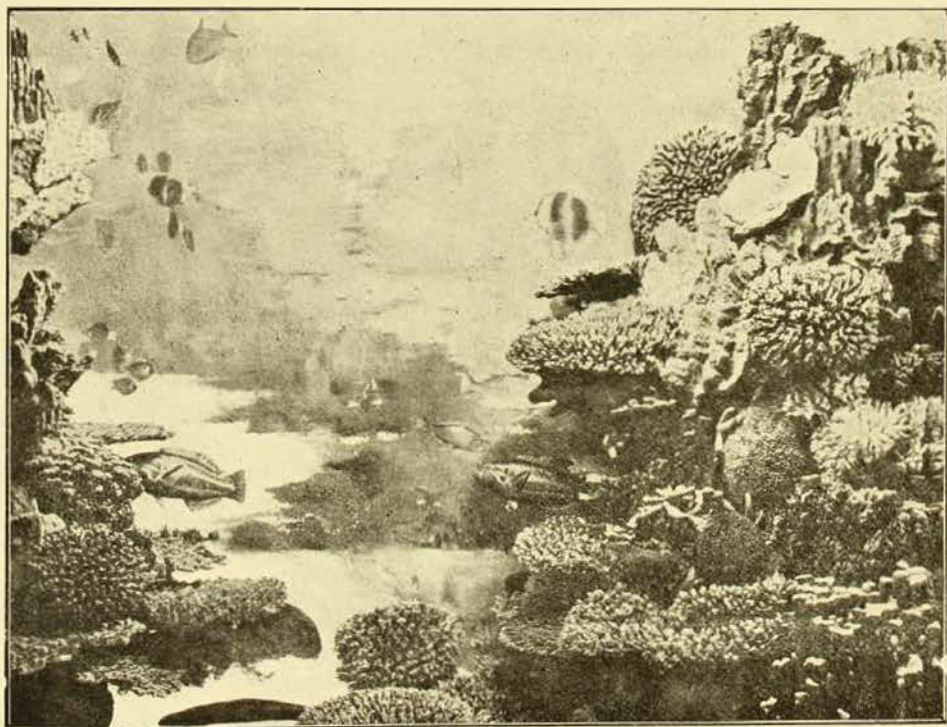
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The Admiralty Islets Bird Group.

[Photo.—G. C. Clutton.]



The Lord Howe Island Coral Group.

[Photo.—G. C. Clutton.]