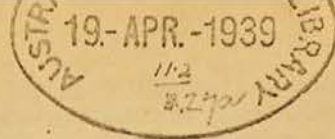


1938.

(SECOND SESSION.)



LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

AUSTRALIAN MUSEUM.

(ANNUAL REPORT OF THE TRUSTEES FOR THE YEAR ENDED 30TH JUNE, 1938.)

Printed under No. 17 Report from Printing Committee, 16 December, 1938.

TO HIS EXCELLENCY THE GOVERNOR.

The Trustees of the Australian Museum have the honour to submit to your Excellency their eighty-fourth Annual Report, being that for the year ended 30th June, 1938.

It will be seen from the details supplied in the reports from the various sections, and from particulars of publications that have been issued during the year, that the Museum as in previous years has made important contributions to scientific knowledge, and has continued to supply useful information to various Departments of State and to the general public.

1. TRUSTEES.

At the December meeting of the Board, Mr. F. S. Mance was re-elected to the office of President for the year 1938.

The Hon. Sir Charles Rosenthal, K.C.B., V.D., M.L.O., Elective Trustee, resigned from the Board in October, 1937, consequent upon his taking up duty as Administrator of Norfolk Island. To fill the vacancy thus created Mr. H. B. Mathews was elected to the Board on 10th December, 1937.

Leave of absence for twelve months from December, 1937, was granted to Professor A. N. Burkitt.

Professor Burkitt and Professor T. Thompson Flynn were invited to represent the Board of Trustees at the Annual Conference of the Museums Association held at Belfast in July, 1938, and Professor Burkitt was nominated as the Trustees' delegate at the 150th Anniversary Celebrations of the Linnean Society of London, held in May, 1938.

A list of the Trustees as at 30th June, 1938, appears in Appendix A.

2. STAFF.

On 12th November, 1937, Mr. J. R. Kinghorn, having been awarded a Museum Visitor's Grant by the Carnegie Corporation, proceeded to America and Britain. He visited many Museums abroad, paying special attention to educational activities, and on his return in May, 1938, submitted a report on his observations.

Mr. G. P. Whitley, while on long service leave from 10th July, 1937, till 18th January, 1938, visited the British Isles, the continent of Europe, and the United States. Mr. Whitley examined the collections in overseas Museums, particularly the types of Australian species of fishes, and on his return furnished a report on his experiences and observations.

Mr. F. D. McCarthy visited the Dutch East Indies and the Malay States, leaving Sydney in June, 1937, and returning in March, 1938. During this period he engaged in excavation work in Celebes with the late Professor van Stein Callenfels, and attended the Conference of Prehistorians of the Far East, held at Singapore, having been nominated as a delegate by the Board of Trustees. In his report to the Trustees he made special reference to the desirability of instituting an archaeological survey in New South Wales, and it was approved by the Trustees that the Government be asked to include in the Estimates a sum of £1000 to enable such a survey to be carried out.

A request by the Department of Mines that Mr. H. O. Fletcher be permitted to identify the fossils for the Geological Survey and to collaborate in palaeontological work with the officers of the Department, was acceded to. On the application of the University of Sydney, Mr. Fletcher was also granted permission to assist in the teaching and examination work of the Geological Department.

Mr. W. Boardman completed his University course and graduated B.Sc. with High Distinction in Zoology.

Dr. C. Anderson, Director, was elected a Corresponding Member of the American Museum of Natural History, New York, for the period 1938-1943, in recognition of his work in comparative anatomy.

The Director submitted a report on the subject of the assistance given by the Preparatorial Staff to Federal and State Government Departments, and it was approved that data be assembled to enable an estimate of actual time consumed in this work to be made.

A list of the staff will be found in Appendix B.

3. HONORARY STAFF AND HONORARY CORRESPONDENTS.

Mr. T. H. Guthrie's appointment as Honorary Lepidopterist was continued for a term of five years from April, 1938.

The following Honorary Correspondents were appointed:—

Mr. J. Manski, Cairns, Queensland.

Mr. Roy Johnson, Maritime Services Board, Sydney.

Mr. H. S. Mort, Mosman, Sydney.

Lists of the Honorary Staff and Honorary Correspondents are given in Appendices C and D.

4. FIELD WORK AND COLLECTING.

During the year attention was specially given to improvements in display, and field work was mainly directed to the procuring of the material and information necessary for this purpose. Messrs. H. S. Grant, J. H. Wright and G. C. Clutton visited the Brewarrina district to obtain kangaroos for a habitat group, and there they were joined by Mr. Frank Tose, Chief of Exhibits, California Academy of Sciences, who by the generosity of the Carnegie Corporation of New York was enabled to spend some months in Australia in order to demonstrate modern methods of taxidermy and display. Mr. Wright also collected wallabies and possums at Nattai, and the Director and Mr. E. L. Troughton accompanied Mr. Tose to the Blue Mountains and the Jenolan Caves to obtain information and material for a Rock Wallaby Habitat Group.

Messrs. J. R. Kinghorn and W. Boardman inspected King's Tableland, Wentworth Falls, where it is proposed to establish a faunal sanctuary, and Mr. H. O. Fletcher spent some days in the Hunter River district examining the Permian sequence.

Mr. E. L. Troughton and Miss J. Allan visited Lord Howe Island and collected marine specimens for display and investigation.

5. DONATIONS.

Mr. Ernest Wunderlich has continued to present volumes issued by the British School of Archaeology in Egypt, comprising some valuable additions to the library. An important donation was made by Dr. Ian MacGillivray, who presented the large collection of birds' eggs formed by his late father, Dr. W. D. K. MacGillivray, of Broken Hill. Particulars of other gifts will be found in the reports on the various sections.

6. GALLERY IMPROVEMENTS.

A special effort was made during the year to effect improvements in the exhibits, and a considerable measure of success was attained. During the visit of Mr. Frank Tose, a class for preparators was established at the Museum and was attended by officers from the Museums in Brisbane, Melbourne, Adelaide and Hobart. Three fine habitat groups were constructed under Mr. Tose's supervision, namely a Red Kangaroo, a Rock Wallaby, and a Koala group, each with scenic background and appropriate accessories. The Platypus group, constructed by the Museum taxidermists, with advice from Mr. Harry Burrell, O.B.E., the highest authority on this curious mammal, forms a very striking exhibit, illustrating its burrowing, swimming, and breeding habits.

Miss J. Allan, Assistant in Conchology, has completely transformed the shell gallery, which now presents an attractive display illustrating the structure, classification, and life habits of the Mollusca.

Work has proceeded in the gallery of reptiles, and Amphibia, where a special effort is being made to impart a more life-like and natural appearance to the exhibits.

In the section of entomology Mr. J. Kingsley, Assistant Articulator and modeller, has constructed small groups consisting of enlarged models and accessories to illustrate the life history of the Ant-lion, the Caddis fly, and other insects.

In the palaeontological room a new floor has been laid down, new cases have been installed, and the exhibits are being arranged so as to tell the story of fossils in a manner which will be comprehensible and interesting to the general public. Part of this room has been cleared of exhibits and made into a rest room where visitors may at their leisure view the newly installed habitat groups.

Nine new upright cases with metal frames were installed in the mineral gallery and various cases have been furnished with new backgrounds in plywood or other material, and with nickel brackets and fittings.

Many improvements have been effected in the anthropological exhibits.

7. LIBRARY.

During the year 256 volumes were added to the library, besides a large number of unbound parts received regularly from institutions and societies in various parts of the world.

Though the library is primarily intended to further the scientific work of the Museum itself its resources are readily made available to other workers, official or private.

As in previous years the Librarian has assisted in the editorial and publication work of the Museum.

The question of the appointment of a Library assistant has been further considered, and proposals to fill the position have been put forward by the Principal Librarian, Mr. W. H. Ifould. Meanwhile the lack of an assistant has been a serious hindrance to the work of the Museum.

8. PUBLICATIONS.

During the year Vol. XX, Part 2 of the "Records" and Vol VI, Parts 6-9, of the "Australian Museum Magazine" were issued.

A brochure, "Australian Aboriginal Decorative Art," by F. D. McCarthy, with one colour plate and many photographic reproductions of actual specimens, was published. There has been a considerable demand for information on this subject and the publication is one which will be useful to artists and designers.

A Guide Book to the Contents of the Museum was prepared during the year and will be available early in the coming financial year.

A list of papers and articles published during the year will be found in Appendix E.

9. SESQUI-CENTENARY CELEBRATIONS.

In connection with the celebrations marking the 150th Anniversary of the Foundation of Australia the Trustees approved that the Museum should co-operate with the Celebrations Committee in the staging of certain exhibits in the Commemorative Pavilion, Royal Easter Show. An aboriginal group containing a number of life-size figures, with appropriate accessories, was shown in the form of a camp scene. The Museum also contributed an exhibit of shells of the Great Barrier Reef, and fishes, shells, and corals of Lord Howe Island.

10. LECTURES AND BROADCASTS.

As in former years Popular Science Lectures and School Lectures were delivered, as well as a number of voluntary addresses, by members of the staff to various educational bodies. A number of broadcasts were also delivered by various members of the scientific staff.

The total attendances at the various series of lectures were as follows:—

	Attendances.
12. Popular Science Lectures	1,652
9 School Lectures	1,603
44 Voluntary Lectures	2,830

Details of Lectures and attendances appear in Appendix F.

11. CARNEGIE CORPORATION GRANT.

The question of the making of nature films for use in schools was discussed with the members of the Film Committee of the Department of Education. For the purposes of this service equipment for making and showing films has been purchased and a number of films illustrative of Australian natural history have been acquired. The Museum photographer, Mr. G. C. Clutton, has embarked on the work of making films of selected subjects.



12. ART GALLERIES AND MUSEUMS ASSOCIATION OF AUSTRALIA AND NEW ZEALAND.

On 9th November, 1937, an informal meeting of the Association was held in the Museum Lecture Hall, Professor H. O. Richards being in the chair. The meeting was attended by the President, and other Trustees, and by members of the scientific and preparatorial staffs of the Australian Museum, by the Director of the Art Gallery, Sydney, the Directors of the National Museum, Melbourne, and the South Australian Museum, Adelaide, the Curator and officers of the Technological Museum, Sydney, and by officers of the State Museums of Queensland, Victoria, South Australia, and Tasmania.

Various matters were discussed including the question of standardised jars for the preservation of spirit specimens, the completion of the north-eastern wing of the Sydney Art Gallery, the formation of a Preparators' Association, Carnegie Corporation Grants, the Constitution of the Association, the separation of the Public Library, Museum and Art Gallery of South Australia.

Mr. Frank Tose, Chief of Exhibits, California Academy of Sciences, delivered an address on methods of preparation and on his observations on Australian Museums.

13. BUILDINGS AND EQUIPMENT.

Preliminary sketch plans of the Museum extensions were completed by the Government Architect's Branch and received the consideration of the Trustees. As the plans provided for the inclusion of the whole of the land occupied by the William-street School, they were referred back to the Government Architect to be recast, and for an alteration to be made in the design of the central feature. The Government Architect agreed to prepare fresh plans on the lines of the alternative sketch plan approved by the Trustees. The sum of money included in the preliminary Loan Estimates of the Works Department was eventually struck out and no progress was made with the new sketch plans within the financial year.

The Department of Works and Local Government gave special attention to the following important items of maintenance:—

- Defective stonework on the College-street facade.
- New rubber treads on stairways.
- Improvements to the main entrance and exit doors.
- New lavatory accommodation.
- New drinking fountains in the galleries.
- Maintenance of the burglar alarm system.

A total of forty-two units of steel storage cabinets provided with trays was purchased, and installed for use in the Ethnological and Invertebrate sections.

The thanks of the Trustees are accorded to the Department of Works and Local Government for its continued supervision of the Museum maintenance needs, and for its ready co-operation in matters affecting Museum buildings.

14. FINANCE.

A special item of £1,500 was included in the Parliamentary Appropriation for the purchase of new display and storage cases, and for special exhibits and furnishings for the galleries.

The Statutory Endowment was restored to the original amount of £1,000 as from 1st January, 1938.

From the Anniversary Celebrations Committee the Trustees received an amount of £42 4s. 1d. towards the cost of the aboriginal group exhibit shown in the Commemorative Pavilion, the Trustees retaining the exhibit.

The total nett expenditure from Consolidated Revenue Fund for the year (excluding Statutory Endowment of £900) was £19,276 14s., compared with £16,214 7s. 1d. for last year. Nett expenditure from Trustees Account Funds (including Statutory Endowment) was £1,251 3s. 5d., compared with £1,149 17s. 3d. for 1936-37. The expenditure for the year from the Trustees No. 2 Account (Carnegie Corporation Grant) was £569 8s.

The cash balance in the Trustees No. 1 Account at 30th June was £128 12s. 2d., whilst that in the Trustees No. 2 Account was £545 0s. 9d.

Statement of receipts and payments and the revenue account for the year will be found in Appendices H. and I.

15. PUBLIC ATTENDANCES.

Statistics of attendances for the year 1932-33 to 1937-38 are appended. It will be observed that the figures for this year are considerably higher than last year's, and approach those of 1932-33 (in May, 1933, the hour of opening was changed from 10 a.m. to 12 noon).

	Week-days.	Sundays.	Total.
1932-33	166,749	53,901	220,650
1933-34	136,066	48,478	184,544
1934-35	150,481	58,734	209,215
1935-36	145,916	56,501	202,417
1936-37	145,860	52,283	198,143
1937-38	157,161	54,809	211,970

16. THE COLLECTIONS.

Mammals (E. Le G. Troughton in charge.)

In addition to various interesting donations received from the Taronga Park Trust (including a fine specimen of a Tree Kangaroo from New Guinea and a young giraffe), and the usual series of small donations, various collections were received and reported upon in regard to health and economic interest.

In continuation of the assistance afforded to the Queensland Bureau of Sugar Experiment Stations, several series of marsupials and rats were identified in connection with economic investigations in the canefields. Fine collections of marsupials, rodents and bats were received for identification from Dr. Carl Gunther, Medical Officer to the Bulolo Gold Dredging Company, Territory of New Guinea, who is engaged in the investigation of endemic typhus and the animal hosts of the mites that carry the infection of this serious disease. From Sir Raphael Cilento, Director-General of Public Health, Queensland, additional specimens of marsupials and rats were received for report in connection with his investigations on the animal reservoirs of leptospirosis (Well's disease). Specimens of rats were also identified for the Colonial Sugar Refining Company.

Important additional collections were purchased at nominal prices from the Rev. J. B. Poncelet, including examples of recently described new species of rats and bats, and representatives of bats not yet recorded from Bougainville Island, Solomons Group.

Apart from the series of Red Kangaroos collected by a Museum party at Quantabone Station, Brewarrina district, for the habitat group, and an excellent small collection of marsupials made by Mr. J. H. Wright, Assistant Taxidermist, in the Burrigorang district, field activities were restricted to the supplying of collecting gear to various voluntary collectors. From Mr. F. R. Bradshaw, Tambellup, Western Australia, marsupial mice and an interesting series of several species of small bats were received.

In addition to the usual curatorial activities Mr. Troughton devoted attention to matters in connection with the preparation and installing of three marsupial habitat groups constructed under the direction of Mr. Frank Tose. As Museum representative of an Advisory Committee formed by the Lord Howe Island Board of Control, Mr. Troughton gave assistance and advice in the planning and arrangement of the Lord Howe Island exhibit in the Commemorative Pavilion in connection with the 150th Anniversary Celebrations. For this exhibit Mr. Troughton, during a vacation visit to the Island, collected a representative series of corals. He also gave assistance in selecting, arranging, and labelling a representative series of mammalian specimens shown at a combined natural history Societies' Exhibition sponsored by the Royal Zoological Society of New South Wales.

Assistance to overseas institutions and various departments included the preparation of faunal reports and service on various committees. Mr. Troughton attended the meetings of a Committee on 'Possum Farming' convened by the Chief Secretary, and of a Committee appointed by the Premier's Department to give advice relative to the acquisition of Koala Park. At the request of the Prime Minister's Department Mr. Troughton prepared lists of mammals for the information of the British Advisory Council in connection with the proposed International Conference on Protection of the Flora and Fauna of the Asiatic and Australasian regions. The Chief Secretary was furnished with a comprehensive report on the mammals deemed to be in need of complete protection. Advice was also given to the Chief Secretary's Department on commercial exploitation of the indigenous Water-rat (*Hydromys*), and the need for its protection; on the economic value of possums in limiting the spread of mistletoe, and various other matters relating to the mammalian fauna. Collections of mammals were identified for the Anatomy Department, and research material was provided for the Department of Surgery, University of Sydney. Assistance and information was also given to the Tasmanian Museum, Hobart, the Animal Health Laboratory and other departments of the Council for Scientific and Industrial Research, the Institute of

Anatomy, Canberra, the Department of Microbiology, Brisbane, and other institutions. During his visit to Sydney in connection with the work of habitat group construction under the supervision of Mr. Tose, Mr. C. W. Brazener, National Museum, Melbourne, was given facilities for examining and photographing types and specimens not represented in the Melbourne Museum.

Owing to various activities research was restricted to the examination of a series of rats as a preliminary to the publication of a report on species of economic importance in the cane-field areas of Queensland. A paper summarising information assembled in various faunal reports was prepared and submitted for publication in the "American Journal of Mammalogy." Mr. Troughton assisted in preparing the mammal and osteology sections of the Museum Guide.

Skeletons. (E. Le G. Troughton in charge.)

Important additions to the collection of human crania included the skull of a Congo pygmy, received by exchange, and five aboriginal skulls; among these were a skull unearthed from a depth of about 7 feet underneath the East Esplanade, Manly, near Sydney, and another representative of the extinct Murray River tribe. A series of crania of indigenous rats was selected for preparation and research, and a number of skulls were made available for a proposed anthropological exhibit. Crania were lent for study to Dr. Oliver Henson and to various research and art students. Human and other crania were provided for Messrs. Allen and Benson in connection with post-graduate dental research, and Mr. Fenner, University of Adelaide, examined and measured a number of aboriginal skulls in our collection.

Birds. (J. R. Kinghorn in charge; W. Boardman, Assistant.)

During Mr. Kinghorn's absence abroad Mr. Boardman was in charge.

Acquisitions during the year totalled 171 birds, nests and eggs. The larger collections were obtained from Dr. Carl Gunther, Bulolo, Territory of New Guinea; Flight Lieutenant Stuart Campbell, Sepik River, New Guinea; Mr. A. J. Marshall, who procured the specimens at Ice Fjord, Spitsbergen.

The registration and cataloguing of many hundreds of eggs received last year have been completed, and the specimens incorporated in the reference collection.

A very large and valuable collection of eggs numbering many thousands, formed by the late Dr. W. D. K. MacGillivray, of Broken Hill, New South Wales, was presented by his son, Dr. Ian MacGillivray; these will be registered in the coming year. The collection, commenced over thirty years ago, is perhaps one of the most valuable of its kind in the Commonwealth, and contains many rare and interesting clutches from western New South Wales, Central Australia, North Australia, western Queensland and the island of the Barrier Reef.

Hundreds of enquiries for information by the general public were attended to, and many students of ornithology visited the Museum to study the collections; these included Sir Charles Belcher and Dr. D. L. Serventy. Information was given to various Government Departments, such as the Chief Secretary's, the Department of Agriculture, the Department of Trade and Customs.

The second Interstate Fauna Conference was held in Sydney in September and Mr. Kinghorn was asked to continue negotiations with foreign countries on the subject of the prohibition of export to Australia of certain species. Over twenty foreign countries were approached and during his visit abroad Mr. Kinghorn discussed the matter with various bodies in the United States and with the Department of Agriculture in Great Britain, Fiji and Colombo.

Reptiles and Batrachia. (J. R. Kinghorn in charge; W. Boardman, Assistant.)

Specimens added during the year numbered 224, including a fine collection presented by Mr. F. R. Bradshaw, Tambellup, Western Australia. Smaller collections were received from Flight Lieutenant Stuart Campbell (Fly River, New Guinea), Dr. Carl Gunther (Bulolo, New Guinea), Mr. Consett Davis (various New South Wales coastal islands). All donations have been registered and catalogued.

Mr. W. Barnes, Assistant Taxidermist, has completed the reorganization of a large section of the reptile gallery, replacing the glass shelving with a sanded background representing rock and various accessories to give a more natural effect to the exhibits. The general result is both attractive and instructive.

Fishes. (G. P. Whitley in charge.)

Mr. Whitley was on long service leave from July, 1937, till January, 1938, during which time the fishes received were registered and preserved by Mr. H. S. Grant, Chief Taxidermist. The identification, cataloguing, and final disposal of the specimens awaited Mr. Whitley's return, and this work was not completed before the end of the financial year.

Donations included several excellent collections from New Guinea, coming from the Upper Sepik River (Flight-Lieutenant Stuart Campbell), Bulolo district (Dr. Carl Gunther), Salamaua and Woodlark Island (Lieutenant-Commander Harrington). From the Rev. J. B. Poncelet we received a further series of fishes from Buin, Solomons, and Commander R. Garsia added to our Nauruan collection. Other noteworthy donations came from Western Australia (Dr. D. L. Serventy), Queensland (Captain A. Nicolson and Mr. C. Volskou), southern Queensland and New South Wales (Mr. Melbourne Ward), Tasmania and Bass Strait (Mr. Consett Davis), and from local sources.

By exchange we acquired some Syngnathidae from the Hamburg Museum, and by purchase several specimens of the Elephant Shark (*Gallorynus milii*), new to the New South Wales fauna.

Mr. E. Le G. Troughton collected three fishes at Lord Howe Island, and small local collections were made by Mr. Whitley.

Numerous fishes which had some bearing on historical matters, early collectors, etc., were lent to the Flora and Fauna Exhibition held during the 150th Anniversary Celebrations, and a collection of Lord Howe Island fishes was exhibited in the Commemorative Pavilion, Royal Agricultural Showground, last Easter.

A large number of enquiries by press and public was dealt with, and when he was abroad Mr. Whitley was consulted by colleagues in various museums and aquaria. Since his return he has furnished information to Dr. E. W. Gudger, American Museum of Natural History, New York, and Professor de Beaufort, Amsterdam, Holland, has been supplied with details of the type of *Platygllossus margaritaceus* (kindly lent by the Macleay Museum, University of Sydney). Members of the staff of the University have been supplied with data on Clupeidae (Professor W. J. Dakin), Nauru fishes and *Branchiostegus* (Mr. A. N. Colefax), Heterontidae (Miss Elizabeth Pope), classification and literature (Miss Stokes and Mr. Salter). Dr. G. Bourne was supplied with identifications of fishes which are being tested for vitamin content. Mr. T. O. Roughley, Economic Zoologist, Technological Museum, was afforded information on Whaler Sharks, Marlin, game fishes, and Kingfish (including *Rachycentron*). Mr. G. Stokell, Canterbury, New Zealand, received advice regarding Eleotridae. Dr. Neave, London, on generic names, Mr. M. Ward, on fishes, collecting and literature. A large number of visitors included Mr. E. O. G. Scott, Queen Victoria Museum, Launceston, Mr. L. Glauert, Director of the Western Australian Museum, Dr. F. L. Koumans and Mr. J. Knock, Leiden, Holland. Hundreds of specimens of gobies were looked out for Dr. Koumans to study.

Mr. Whitley attended a meeting of the Freshwater Research Sub-Committee at the University on 2nd May, and a Fisheries Advisory Council meeting at the Chief Secretary's Department on 19th May.

Mr. Whitley has had but little time for research, but a few rare specimens were described in the course of routine work and he completed the fish section of the Museum Guide.

Insects and Arachnids. (A. Musgrave in charge; K. C. McKeown and Miss N. B. Adams, Assistants; Dr. G. A. Waterhouse and Mr. H. J. Carter, Honorary Entomologists.)

Collections have been received from the following:—

Dr. C. Gunther (Parasites from Morobe, New Guinea); Mr. H. Phillips (a fine series of Fijian Lepidoptera); Mr. N. Geary (a large collection of insects and spiders from the Bunya Mountains, Queensland). Important additions were a series of types of Colydiidae, presented by Mr. H. J. Carter, and portion of the Tillyard collection of Neuropterous insects presented by the Bureau of Economic Entomology, Canberra; the latter includes 646 specimens of Odonata (Dragon flies), many of them co-types.

Dr. Waterhouse reports that the most notable additions to the collection of Rhopalocera (Butterflies) were the holotype male of *Argynnina tasmanica*, presented by Mr. G. Lyell; bred specimens of *Virachola democles*, from Messrs. Franzen and Manski; a collection from the higher parts of the Federal Capital Territory, including new races, from Mr. D. F. Waterhouse; a fine series of *Ogyris amaryllis* from Emu Plains, bred by Dr. Waterhouse; the first recorded Victorian specimens of *Anisynta dominula drachmophora*, presented by Dr. T. Guthrie.

Butterflies registered by Dr. Waterhouse during the year numbered 2,802 from the Waterhouse Collection, 25 from the Lyell Collection, and 105 from the Museum Collection.

Much of the work of the department consisted in answering enquiries regarding insects and spiders. Information and assistance were given to officers of the Department of Agriculture and to the following visitors:—Mr. A. L. Tonnoir (C.S.I.R., Canberra), Mr. R. O. Millett (Forestry Department, Canberra), Mr. Horace Brown (Perth, Western Australia), Mr. J. W. Evans (Government Entomologist, Tasmania), Dr. J. Davidson (Director, Waite Institute, South Australia), Dr. A. J. Turner (Brisbane), Dr. D. Miller (Cawthron Institute, New Zealand), Messrs. F. H. Taylor and Consett Davis (University of Sydney), Miss Irwin Smith (Sydney), and many others.

Mr. Musgrave has worked on Australian Pentatomidae, and the long series of specimens brought together has enabled him to do much work of a revisionary nature; a paper on the material is in course of preparation. Mr. Musgrave, assisted by Miss Adams, also overhauled and revised the Australian Diptera and Pacific Island Moths. He also spent considerable time indexing literature on general zoology for Australian Science Abstracts, and also the literature on Australian and Pacific Islands entomology.

Mr. McKeown has revised the families Erotylidae, Oolydiidae, Meloidae, Lycidae and Ithonidae. Preliminary work has been done on the revision of the Dynastidae, and further progress has been made in the installation of uniform type labels throughout the collection, preliminary to the preparation of a catalogue of the types contained in this portion of the collections. Mr. McKeown has continued research on, and description of, new species of Australian Cerambycidae (Coleoptera). Collections of Cerambycidae have been received for examination and naming from the Departments of Agriculture in New South Wales and Queensland, the Macleay Museum, and the Deutsches Entomologisches Institut, Berlin. As the result of Mr. McKeown's work since 1936 the percentage of known Australian species of Cerambycidae in the Australian Museum collection has risen from 48 to 78. Work on the food of trout in New South Wales has been continued.

Mr. McKeown made a check of the Australian species of *Tympaniphora* (Orthoptera) for Dr. F. E. Zeuner, British Museum, and is preparing information regarding Cerambycid types for Dr. Breuning, Vienna, Austria. Collections of insects for examination and naming by Mr. McKeown were received from Mr. J. T. Gray, Orororo, South Australia; Mr. G. Lupson, Port Moresby, Papua; and Miss E. Garrett, Katoomba, N.S.W.

Conchology. (T. Iredale in charge; Miss J. Allan, Assistant.)

Many specimens of marine Mollusca from New South Wales coastal waters have been received from local collectors, such as Messrs. C. F. and J. Laceron, H. S. Mort, E. Watson and H. Bernhard. The Rev. P. Hubbard has sent collections from Palm Island, Queensland, and Mr. Consett Davis made a very useful collection from the west coast of Tasmania, a locality previously unrepresented here. Mr. Iredale collected at Middle Harbour with Mr. G. Kesteven, and at Kurnell with Mr. A. W. B. Powell, Auckland, New Zealand. Miss Allan visited Lord Howe Island and made collections there, particularly of the Nudibranch fauna.

Curatorial work included re-arrangement of the duplicate collection, entailing elimination of much surplus material. Miss Allan continued work in the gallery with much success, the display having received high commendation from visitors such as Mr. Powell, Auckland Museum, New Zealand; Mr. Tose, California Academy of Sciences, and others.

Mr. Iredale has continued work on the Low Isle shells, the first part of which is now in the press. He has simultaneously carried on his researches on Australian Land and Freshwater Shells.

Visitors and enquiries have been numerous during the year. The most important visitor was Dr. Paul Fischer, grandson of the famous author of the *Manuel de Conchyliologie*. Others included Mr. R. V. Oldham, Port Moresby, and Mr. and Mrs. Chaseling, Arnhem Land, who have made collections of great value from a locality where the molluscan fauna was previously almost unknown. Mr. Melbourne Ward contributed important collections from westward of Arnhem Land, a region little known conchologically.

Assistance was given to Mr. G. Kesteven (Fisheries Branch); Mr. T. O. Roughley, Technological Museum; Miss Irene Orespin, Commonwealth Palaeontologist; Professor Byers Unger, New Hampshire, U.S.A., and many others. The Town Clerk, Lismore, submitted for determination shells of great interest obtained in an excavation near that town.

As in previous years Miss Allan made drawings to illustrate papers on Mollusca and fishes and popular articles appearing in the Australian Museum Magazine.

Lower Invertebrates. (F. A. McNeill in charge; A. Livingstone, Assistant.)

Most acquisitions received during the year were of a minor character, but an extensive and varied collection of Echinodermata was received from Dr. H. Lyman Clark, Museum of Comparative Zoology, Cambridge, Mass., U.S.A. This was a very valuable donation of named species obtained during expeditions to North and West Australia and to Lord Howe Island in recent years.

The collection of Amphipoda was systematically overhauled during the visit of Mr. K. Sheard, a specialist from Adelaide, South Australia; prior to and following on Mr. Sheard's visit loan and exchange amphipod material was assembled and forwarded to the South Australian Museum for prolonged study.

In order to improve storage in this department modern steel stacks have been installed and will provide adequate storage space for some years.

Mr. McNeill has almost completed the identification of the large collection of Decapod Crustacea made by the British Great Barrier Reef Expedition and the text of his report is in preparation. He has also collaborated with Mr. R. A. Johnson, Maritime Services Board, in further investigations on marine borers, and has examined several batches of material from the Port of Brisbane submitted by the Queensland Forest Service. Other material, connected mainly with economic problems, has been submitted by various State Departments for examination and determination.

Mr. Livingstone has made progress in the work of sorting the large collection of Bryozoa received for description from the Publication Committee of the British, Australian, New Zealand Antarctic Expedition.

Anthropology. (C. Anderson, in charge; Miss E. Bramell and F. D. McCarthy, Assistants.)

Outstanding donations during the year were:—Prehistoric stone objects from the Watut River, Territory of New Guinea, by Messrs. G. V. and R. V. Wild, including a slate blade and a carved bird's head of unique interest; 240 specimens from the Upper Fly River, Papua, by Flight-Lieutenant Stuart Campbell, who also presented a manuscript dealing with the culture of the natives in this region; fifty-three specimens of native handiwork by Mr. B. McMicking; five carved trees from Boggabri, New South Wales, by Mr. H. W. Pye; a collection of 474 articles, including bamboo cigarette-holders, flutes, lime-holders, netted bags, weapons, etc., from the region north of the Torricelli Mountains, Territory of New Guinea, by Mr. H. D. Eve; fine series of stone implements from the south coastal districts of New South Wales, by the Rev. A. J. Barrett.

Various sections of the galleries were re-arranged, including the Solomon Island inlaid work, Australian grinding stones, weapons, native foodstuffs, and domestic gear. A display of Australian aboriginal art, murals rock carvings, and the pigments and utensils used was installed.

Plans were made for an exhibit illustrating the story of Man and his Ancestry; for this purpose brain casts have been made and drafts of charts and legends prepared. A model depicting a section of the aboriginal rock fisheries at Brewarrina, New South Wales, has been placed in the Australian Hall. The life-size group of aborigines shown as part of the sesqui-centenary exhibits in the Commemorative Pavilion, Royal Agricultural Society's Showground, was afterwards acquired by the Trustees and will be utilized in an aboriginal group for which plans have been made.

Three steel storage cabinets fitted with trays, have been installed, and the advantage of this method of storage has been abundantly proved; much less floor space is required and the specimens are readily accessible. Additional cabinets of similar type are required.

Further data for the catalogue of Australian stone, bone, and shell implements were accumulated, but pressure of other work has delayed completion of this study.

General enquiries were attended to and assistance given to artists seeking information on aboriginal design, and to Expeditionary Films Limited.

Numismatics. (C. Anderson in charge; Miss E. Bramell and F. D. McCarthy, Assistants.)

The majority of the accessions were purchased, and included specimens of the George VI Australian Crown piece, Coronation and Abdication medals of Edward VIII, Coronation medals of George VI, a set of George VI coins of Great Britain, nineteen denarii of Ancient Rome, and sixteen ancient Grecian coins of varying denominations and subjects.

A Spade guinea of George III was presented by Mr. Clarence Degenhardt, and eleven old Dutch coins, collected from natives in the Celebes, by Mr. F. D. McCarthy.

Accessions were added to the medal and coin exhibits.

Fossils. (C. Anderson in charge; H. O. Fletcher, Assistant.)

Registrations during the year numbered 1,157; these included several collections of special interest and value. Mr. A. J. Voisey presented several fine series of Permian fossils from Tasmania and the northern districts of New South Wales. This material is important as it was collected from known horizons in the Permian sequence and included many species hitherto poorly represented. Mr. H. Coley presented a valuable collection of fossils from the Wandagee Stage of the Western Australian Permian. These included several new records of Australian Permian species, and when added to our Western Australian material complete a fairly adequate representation of the Permian fauna of that State. A collection presented by Mr. J. W. Hawley consists of a well preserved series of Permian pelecypods from Broughton, near Berry, New South Wales. Mr. W. E. Williams, Cootamundra, presented a further series of Upper Silurian brachiopods and pelecypods from that district. A collection of Upper Silurian material from Bohemia was received in exchange from Professor Y. Perner. Exchanges from American sources included material from the Ordovician, Silurian, and Devonian.

The palaeontological collection is being reorganized and catalogued, but much yet remains to be done in this direction. Adequate storage has now been provided, and the sorting of specimens is proceeding. Dr. Dorothy Hill, University of Queensland, spent some time at the Museum overhauling and classifying the Palaeozoic corals. The collection of fossil corals is now being rearranged, type specimens checked with the literature, and cataloguing is almost completed. A commencement has been made in sorting and cataloguing the large collection of polychaetes, involving much consultation of literature.

The exhibited collection has received a good deal of attention during the year. Four new upright floor cases have been installed and have been partly filled with special exhibits such as extinct birds, teeth of fossil sharks, specimens illustrating the evolution of the horse. The wall cases are being gradually filled with specimens illustrating the evolution of life from the Pre-Cambrian to the present day. A large coloured diagram shows the succession of rocks of the earth's crust, and a geological column gives the principal life forms of the various geological periods. Another coloured chart illustrates the main groups of plants and animals and their development through the ages.

Mineralogy. (T. Hodge-Smith in charge; R. O. Chalmers, Assistant.)

Additions to the mineralogical collection during the year numbered 266 specimens. These included cassiterite from New Guinea, presented by Mr. R. V. Wild; apophyllite from Prospect, near Sydney, presented by Mr. A. Napier, and from Broken Hill, New South Wales, presented by Mr. M. Mawby; these two minerals have not previously been recorded from these localities. Other donations were a collection of minerals from South Australia, presented by Mrs. L. P. Garlan; from New Zealand, presented by Mr. H. Howard; a series of zeolites from Merriwa, New South Wales, by Mr. P. Mills; crystallised rhodonite from Broken Hill, by Mr. E. O. Andrews, Trustee; a fine crystal of monazite from the Gulf, New South Wales, by Dr. D. H. White; Aragonite from Bexhill, near Lismore, New South Wales, by Mr. C. C. Towle; chiasmalite from Chile, by Miss E. Martin.

Woodhouseite and angelite, species not previously represented in the Museum, neptunite, benitoite, and linarite from California, U.S.A., were acquired by exchange with Mr. C. D. Woodhouse. A number of minerals from various localities, including some crystallised wolframite, and a large specimen of dundasite from Tasmania, were received by exchange with Mr. J. J. Johnston.

Purchases included gold in quartz from Laverton, Western Australia, two excellent specimens of crocoite and one of cerussite from Dundas, Tasmania, and the largest crystals of anglesite yet obtained from Broken Hill, New South Wales.

Ten new upright metal cases have been installed in the gallery, necessitating the rearrangement of practically all the specimens contained in the wall cases. A special display of models of Australian gold nuggets has been made at the eastern end of the gallery. The display of fluorescent minerals has not functioned well, D.C. lighting as supplied to the Museum being unsuited to the ultra-violet ray lamps. The manufacturers of these lamps have been communicated with and it is hoped that the trouble will be overcome shortly. The display of opals has been temporarily removed and arrangements have been made for a special exhibit of opals to be placed on view early next year.

Collections of minerals have been sent to the Church of England Girls' Grammar School, Moss Vale, and the Technical Colleges at Sydney and Newcastle.

Professor W. H. Shideler, Miami University, Ohio, U.S.A., spent a fortnight examining the collection and an exchange of minerals has been arranged with his University. Mr. C. D. Woodhouse, a well known mineral collector of Santa Barbara, California, spent three days here, and as a result of his visit we acquired a number of interesting minerals as mentioned above.

As in previous years many enquiries have been answered; there has been a striking increase in the number of enquiries regarding tantalum minerals.

Petrology. (T. Hodge-Smith in charge; R. O. Chalmers, Assistant.)

Acquisitions number 291 rocks and seventy-seven rock slides. Portions of the Beneubbin siderolite and the Wonyulgumma siderite, both from Western Australia, were obtained by exchange with Dr. E. S. Simpson. An unrecorded siderite from the Basedow Range, Central Australia, was purchased. A collection of australites was presented by Mr. P. McCourt, and of New Zealand rocks by Mr. H. Howard. A series of rocks from the Five Islands, South Coast, was collected and presented by Mr. Chalmers.

The collection of rocks formerly displayed in the palaeontological gallery has been removed from exhibition. It is hoped that a more comprehensive exhibit will shortly be installed in the mineral gallery. The collection of meteorites has been rearranged and form a special exhibit in the western end of the gallery. The cases have been lined with "insulite" board, and the meteorites are placed on short glass

shelves supported by nickel-plated brackets; where possible each specimen is accompanied by a cast of the whole meteorite. An introductory series is illustrated by large labels, diagrams, photographs, and a painting of a falling star shown against a typical Sydney Harbour background; this painting was executed by a student of the East Sydney Technical College under the direction of Mr. E. C. Walters, Acting Lecturer in Charge of Art.

Mr. Hodge-Smith has completed a memoir on Australian Meteorites, which will be published in the coming year.

Mr. Chalmers furnished a report on the geology and petrology of the Five Islands for Mr. Consett Davis, who is making an ecological study of these islands.

Mr. Hodge-Smith has been appointed a member of the editorial committee formed in connection with the publication of the "Australian Journal of Science" by the Australian and New Zealand Association for the Advancement of Science.

PREPARATION.

1. General.

Owing to the visit of Mr. Frank Tose and the part taken by the Museum in connection with the Sesqui-Centenary of the Foundation of Australia much special work has been performed by the preparatorial staff during the past year.

To obtain specimens and accessions for the Red Kangaroo group Messrs. H. S. Grant, J. H. Wright and G. C. Clutton spent seven days in the Brewarrina district as the guests of Mr. R. B. Pearson, Manager of Quantabone Station. The Trustees are greatly indebted to the owners of the Station and to Mr. Pearson for the hospitality and assistance their officers received during the visit. Seven kangaroos were obtained, plaster casts of certain anatomical features were made, and a number of photographs taken for use in preparing the group. Samples of the vegetation and a quantity of soil were obtained, and during a short visit Mr. Tose made sketches for the background.

Under Mr. Tose's instruction the preparators undertook the making of artificial foliage and studied the technique of mounting animals by the modern manikin method, which involves the making of a clay model, from which a mould is constructed, and inside this the manikin is built up. Employing this method a dog and a wallaby were mounted for the aboriginal group exhibited at the Show Ground during the 150th Anniversary Celebrations, the modelling being the work of J. Kingsley, Assistant Articulator.

2. Taxidermists' Branch. (H. S. Grant in charge; J. H. Wright and W. Barnes, Assistants.)

New specimens skinned or preserved consisted of 123 mammals, 152 birds, and 94 reptiles; new study specimens prepared totalled 117 mammals and 270 birds. Sixteen mounted mammal and fifty-two bird exhibits were renovated.

The champion stud ram "Strathaird of Dalkeith," provided by Sir F. D. McMaster, and also a stud ram descended from the original Camden flock established by John Macarthur, were mounted for exhibition in the Technological Museum, Sydney. A Forgotten Bird of Paradise was mounted for the Taronga Park Trust, and an albino magpie for the Technical College, Bathurst.

Exhibits were provided and arranged for the Royal Australian Historical Society, and the Royal Zoological Society in connection with the Sesqui-Centenary Celebrations, and also for the floats in the street procession.

For the platypus habitat group five adult specimens were mounted, as well as two birds and one lizard. For this group the background was painted by Miss Ethel King, the setting being a scene on the Wollondilly River, Burrigorang Valley. Miss King also assisted in making the artificial foliage used in the group. A small case nearby contains platypus eggs and a male specimen dissected to show the poison gland and duct.

Mr. Grant and his assistants did the preliminary work in connection with the installation of the three marsupial habitat groups, the former planning and supervising the layout and construction of the plaster backgrounds. Mr. Barnes completed a special display of large shells on a modelled background, and made a beginning with the reorganization of the exhibited collection of Crustacea.

In the absence of Mr. J. R. Kinghorn, Mr. Grant was appointed Acting Secretary to the State Fauna Advisory Committee, and in this capacity dealt with numerous applications for licenses to export birds, and made reports on the confiscation of prohibited imports. For the Chief Secretary's and Customs Departments he reported on 110 incoming shipments of birds, and with police officers made several inspections of aviaries and bird shops. As an expert witness for the Crown he gave evidence in four cases of prosecution for breaches of the Bird and Animal Protection Act, and he also assisted the police in the identification of possum and other mammal skins. Mr. Grant also prepared a report to form the basis of regulations for the housing of birds for transport overseas, and by train, or when offered for sale; his suggestions were adopted by the Customs and Chief Secretary's Departments.

As in previous years post-mortems on cage and other birds were made and reports furnished when desired. Collections were received, checked, and placed in preservative for attention by the departmental officers concerned.

At the request of the Director, National Museum, Melbourne, Mr. Grant supplied plans and details of the construction of the habitat group cases recently installed in the Australian Museum.

3. *Articulator's Branch.* (G. C. Clutton in charge; J. Kingsley, Assistant.)

In this branch the year's work was very varied, for in addition to the ordinary routine the officers took their share in the large programme of group work and the construction of special exhibits.

One skeleton and eighteen skulls, mostly mammalian, were prepared. Mr. Kingsley completed eleven enlarged models of insects and larvae and a quantity of artificial foliage to be used in the construction of four small groups illustrating the life history of certain insects. One of these, depicting the life history and habits of the ant-lion, has been completed and the others are in progress.

Fifty-six moulds, in plaster or glue, were prepared and seventy-seven casts made, including several endocranial casts intended for an exhibit of human evolution.

A considerable amount of photographic work was done, including the making of 300 negatives for illustration of the "Records," the "Magazine," and for lantern slides. Photographic prints made numbered 2,144, and 156 lantern slides were added to the collection. A 16 mm. cinema camera has been acquired for the branch, and a short film of a marsupial mouse was made.

Micro-slides were made of 111 rocks and twenty-nine fossils. Three meteorites were cut and polished.

The Common Seal of the Museum was hereunto affixed by Order of the Board this 24th day of November, 1938.

(L.S.) Signed, F. S. MANCE, President.
Signed, W. T. WELLS, Secretary.

APPENDIX A.

TRUSTEES OF THE AUSTRALIAN MUSEUM AT 30TH JUNE, 1938.

Crown Trustees	Mr. James McKern.
Statutory	His Honour the Chief Justice. The Hon. the Colonial Secretary. The Hon. the Attorney General. The Hon. the Colonial Treasurer. The Auditor General (Mr. John Spence, C.M.G.). The President of the Medical Board.
Appointed	The Hon. the President of the Legislative Council. The Crown Solicitor. The Surveyor General and Chief Surveyor (Mr. A. Max Allen). The Hon. the Secretary for Works and Local Government. The Hon. the Minister for Education.
Elective Trustees	Dr. G. H. Abbott, M.B., Ch.M. Mr. E. C. Andrews, B.A., F.G.S. Mr. C. M. Blair. Dr. C. Gordon MacLeod, M.B., Ch.M., M.A. Dr. G. A. Waterhouse, B.E., F.R.E.S. Mr. F. S. Mance, A.I.C.A. The Hon. F. E. Wall, M.D., M.L.C. Professor A. N. Burkitt, M.B., B.Sc. Hon. H. M. Hawkins, M.L.C., F.R.E.I., F.O.I.V. Professor W. J. Dakin, D.Sc. Mr. F. W. Marks, F.O.A. (Aust.). Mr. H. B. Mathews, B.A.

APPENDIX B.

STAFF OF THE AUSTRALIAN MUSEUM AT 30TH JUNE, 1938.

Director	C. Anderson, M.A., D.Sc., C.M.Z.S.
Administrative Staff—	
Secretary	W. T. Wells, A.I.A.V.
Clerks	Miss G. E. Johnstone. R. D. Gill.
Scientific Staff—	
Department of Zoology	J. R. Kinghorn, C.M.Z.S., Ornithologist, Herpetologist. W. Boardman, B.Sc., Assistant. E. Le C. Troughton, C.M.Z.S., Mammalogist. A. Musgrave, F.R.E.S., F.R.Z.S., Entomologist. K. C. McKeown, Assistant. Miss N. B. Adams, Assistant. F. A. McNeill, Lower Invertebrates. A. A. Livingstone, Assistant. T. Iredale, F.R.Z.S., Conchologist. Miss O. M. J. Allan, Assistant. G. P. Whitley, F.R.Z.S., Ichthyologist.
Department of Anthropology ...	Miss E. Bramell, M.A., Dip.Ed., Assistant. F. D. McCarthy, Dip. Anth., Assistant.
Department of Mineralogy	T. Hodge-Smith, Mineralogist, Petrologist. R. O. Chalmers, A.S.T.C., Assistant.
Department of Palaeontology ...	H. O. Fletcher, Assistant.
Library Staff—	
Librarian	W. A. Rainbow.
Preparatorial Staff—	
Articulator	G. C. Clutton
Assistant Articulator	J. Kingsley.
Taxidermist	H. S. Grant.
Assistant Taxidermist	J. H. Wright. W. Barnes.
Mechanical Staff—	
Chief Mechanic	T. A. Henson.
Assistant Mechanic	H. Jackson.
Attendants and General Staff—	
Chief Attendant	T. A. Murphy.
Attendants	W. A. Medway. H. W. Stein. J. McIver. R. K. Morris. F. H. West. J. Lewis.
Night Attendants	F. L. Haylings. T. Glazebrook.

APPENDIX C.

HONORARY STAFF OF THE AUSTRALIAN MUSEUM AT 30th JUNE, 1938.

Professor T. Harvey Johnston, M.A., D.Sc., Hon. Zoologist.
 Edw. F. Hallmann, B.Sc., Hon. Zoologist.
 A. F. Basset Hull, M.B.E., Hon. Ornithologist.
 G. A. Waterhouse, D.Sc., B.E., Hon. Entomologist.
 H. J. Carter, B.A., Hon. Entomologist.
 E. A. Briggs, D.Sc., Hon. Zoologist.
 H. Leighton Kesteven, D.Sc., M.D., Hon. Zoologist.
 Melbourne Ward, F.R.Z.S., Hon. Zoologist.
 Geo. A. Thomas, Hon. Archaeologist.
 K. A. Hindwood, Hon. Ornithologist.
 T. H. Guthrie, Hon. Lepidopterist.
 A. J. Marshall, Hon. Ornithologist.
 Professor W. L. Shellshear, M.B., Ch.M., Hon. Archaeologist.

APPENDIX D.

HONORARY CORRESPONDENTS OF THE AUSTRALIAN MUSEUM AT 30th JUNE, 1938.

Mr. R. E. Baxter.	Mr. Anthony Hordern.	Mr. R. R. Dangar.
Mr. H. Barrell.	Sir Samuel Hordern.	Mr. R. H. Dangar.
Captain D. L. Comtesse.	Mr. O. Phillips.	Mr. James Burns.
Sir Hugh Denison.	Sir Arthur Rickard.	Mr. C. P. Lascron.
Mr. Robert Dixon.	Mr. T. E. Rofe.	Mr. J. Manski.
Mr. William Dixon.	Mr. Melbourne Ward.	Mr. Roy Johnson.
Mr. C. E. Hart.	Dr. G. A. Waterhouse.	Mr. H. S. Mort.

APPENDIX E.

PAPERS AND ARTICLES PREPARED DURING THE YEAR.

- E. Le G. Troughton—
 "New Marsupial Groups in the Australian Museum." *Austr. Mus. Mag.*, VI, 8, 1937.
 "Australian Mammals: Their Past and Future." (For *Journ. of Mammalogy*.)
- J. R. Kinghorn—
 "Introducing the Lizards: Part I." *Austr. Mus. Mag.*, VI, 7, 1937.
 "Introducing the Lizards: Part II." *Ibid.*, VI, 8, 1937.
- G. P. Whitley—
 "The Nature Lore of Lafendie Hearn." *Austr. Mus. Mag.*, VI, 8, 1937.
 "Naturalists of the First Fleet." *Ibid.*, VI, 9, 1938.
 "The International Hunting Exhibition at Berlin." *Ibid.*, VI, 10, 1938.
 "Sidelights on New Zealand Ichthyology." *Rept. Austr. N.Z. Assoc. Adv. Sci.*, 1937 (1938) (title only).
 "New Stomateiform Fish from South Australia." (For *Rec. S. Austr. Mus.*)
 "Ichthyological Genotypes: Desmarest's Designations, 1874." (For *Austr. Zoologist*.)
 "Eggs of Australian Sharks and Rays." (For *Austr. Mus. Mag.*)
 "The First Australian Two-headed Shark." (For *Austr. Mus. Mag.*)
 "Snakes that Fish." (For *Austr. Mus. Mag.*)
 "Guide to the Australian Museum." (Section Fishes.)
- A. Musgrave—
 "Notes on the Assassin Bug." *Austr. Mus. Mag.*, VI, 10, 1938.
- K. C. McKeown—
 "Notes on Australian Cerambycidae, III." *Rec. Austr. Mus.*, XX, 2, 1937.
 "Insect Musicians: Part II." *Austr. Mus. Mag.*, VI, 7, 1937.
 "Some Early Glimpses of Australian Wild Life." *Ibid.*, VI, 8, 1937.
 "Notes on Australian Cerambycidae, IV." *Rec. Austr. Mus.*, XX, 3, 1938.
 "New Australian Species of *Syllitus*." (For *Mem. Q'land Mus.*)
 "Australian Insects, II: The Silverfish and its Allies." (For *Austr. Mus. Mag.*)
 "Guide to the Australian Museum." (Sections, Birds, Reptiles, Insects and Arachnids.)
- G. A. Waterhouse—
 "Notes on Jones' Icones (*Lepidoptera*)." *Proc. R. Entom. Soc., Lond.*, XIII, 1938.
 "Some Additional Information on the Dates of Publication of Hewitson's Illustrations Exotic Butterflies." *Journ. Soc. Bibliog., Nat. Hist.*, I, 1938.
 "Notes on Australian Butterflies in the Australian Museum, I." (For *Rec. Austr. Mus.*)
- T. Fredale—
 "A Basic List of the Land Mollusca of Australia, Part II." *Austr. Zoologist*, IX, 1937.
 "A Basic List of the Land Mollusca of Australia, Part III." (For *Austr. Zoologist*.)
 "The Mollusca of Low Isles, Part I." (For publication by the British Museum.)
 "Review of the Land Shells of Western Australia." (For *Proc. R. Soc. W. Austr.*)
 "Guide to the Australian Museum." (Section Mollusca.)
- Joyce Allan—
 "Australian Shells." *Austr. Mus. Mag.*, VI, 7, 1937.
 "Australian Shells." *Ibid.*, VI, 8, 1937.
 "Australian Shells." *Ibid.*, VI, 9, 1938.
- F. A. McNeill.
 "The Blue Bottle, Terror of the Surfing Beaches." *Austr. Mus. Mag.*, VI, 7, 1937.

Appendix E—continued.

- F. A. McNeill and A. A. Livingstone—
"Guide to the Australian Museum." (Section on Lower Invertebrates.)
- A. A. Livingstone—
"Parasites and Parasitism." *Austr. Mus. Mag.*, VI, 7, 1937.
"The Ocean Depths and its Denizens." *Ibid.*, VI, 8, 1937.
- H. O. Fletcher—
"Britain's Most Isolated Outpost of Empire." *Austr. Mus. Mag.*, VI, 8, 1937.
- F. D. McCarthy—
"Aboriginal Relics: Necessity for Protection." (For Mankind.)
- Elsie Bramell—
"Guide to the Australian Museum." (Sections. Ethnography and Numismatics.)
- C. Anderson—
"The Art of the Preparator." *Austr. Mus. Mag.*, VI, 7, 1937.
"Guide to the Australian Museum." (Sections, Mammals, Osteology, Fossils.)
- T. Hodge-Smith—
"Zeolites." *Austr. Mus. Mag.*, VI, 9, 1938.
"Glendonites and Other Fossil Crystals." *Ibid.*, VI, 10, 1938.
"Guide to the Australian Museum." (Sections. Minerals and Meteorites.)
- K. A. Hindwood—
"The Extinct Birds of Lord Howe Island." *Austr. Mus. Mag.*, VI, 9, 1938.
- M. S. Sharland—
"Birds and a Cuckoo: Mysteries of Bird Behaviour." *Ibid.*, VI, 10, 1938.
- H. J. Carter—
"A New Stigmodera from Western Australia." *Rec. Austr. Mus.*, XX, 3, 1938.
- Miss V. C. Levitt—
"The Habits of *Sidyma longipes*, an Australian Spider." *Austr. Mus. Mag.*, VI, 10, 1938.
- N. Geary—
"Some Habits of an Assassin Bug." *Ibid.*, VI, 10, 1938.

APPENDIX F.

LECTURES DELIVERED DURING THE YEAR 1937-38.

Popular Science Series.

Date.	Subject.	Lecturer.	Attendance.
1937.			
8 July	"An Entomologist Abroad"	A. Musgrave	144
29 "	"Gemstones in Ancient and Modern Times"	R. O. Chalmers	145
12 Aug.	"Native Dance and Drama"	Miss E. Bramell	122
26 "	"Birds of the Sydney District"	K. A. Hindwood	154
9 Sept.	"New Zealand, North and South"	Miss J. Allan	264
30 "	"A Trip to Iceland, Spitzbergen and Norway: A Study of Volcanoes and Glaciers."	E. C. Andrews	133
14 Oct.	"China's Contribution to Prehistoric Research"	Prof. Shellshear	160
1938.			
28 April	"Australia's New Territory in the Antarctic and its Fauna."	H. O. Fletcher	97
12 May	"The Diamond"	T. Hodge Smith	139
26 "	"Man Against the Insects"	K. C. McKeown	108
9 June	"The Seas"	F. A. McNeill	129
23 "	"Museums: One Hundred and Fifty Years Development."	T. Iredale	57
Twelve Lectures—Total			1,652
School Lectures.			
1937.			
6 July	Insects	K. C. McKeown	194
20 "	Shells	Miss J. Allan	241
3 Aug.	Spiders	A. Musgrave	245
17 "	Geology	R. O. Chalmers	155
14 Sept.	Shore Life	F. A. McNeill	139
28 "	Birds	J. R. Kinghorn	209
1938.			
3 May	Fishes	G. P. Whitley	95
14 June	Furred Animals	E. L. Troughton	65
28 "	Insects	K. C. McKeown	260
Nine Lectures—Total			1,603

APPENDIX G.

Return of Specimens acquired during the year ended 30th June, 1938:—

Department.	Donation.	Exchange.	Purchase.	Prepared.	Collection.	Total.
Vertebrata—						
Mammalia	150	...	24	...	18	192
Aves.....	243	...	...	...	2	245
Reptilia	223	...	...	...	...	223
Pisces	688	16	5	...	30	749
Skeletons.....	9	1	...	...	...	10
	1,323	17	29	...	50	1,419
Invertebrata—						
Mollusca	1	...	...	...	166	167
Insects and Arachnida	1,695	...	2,125	...	16	3,736
Crustacea	60	...	...	...	...	60
Echinodermata	25	...	...	...	...	25
Polyzoa .....	...	...	...	...	...	...
Vermes	44	...	1	...	...	45
Hydroids .....	...	...	...	...	...	...
Sponges and Foraminifera ..	...	...	...	...	...	...
Other Invertebrata	3	...	...	...	...	3
	1,728	...	2,126	...	182	4,036
Fossils	919	94	40	...	104	1,157
Minerals	123	48	95	...	...	266
Rocks	65	4	2	...	220	291
	1,107	146	137	...	324	1,714
Ethnological, etc.—						
Ethnological	1,337	97	571	6	1,056	3,067
Historical	5	...	...	...	...	5
Numismatical	24	...	63	...	...	87
	1,366	97	634	6	1,056	3,159
Miscellaneous—						
Micro. Sections	1	...	...	24	...	25
Casts	2	30	3	9	...	44
Moulds.....	...	...	...	9	...	9
Photo. Negatives .....	...	...	10	79	...	89
Lantern Slides .....	...	...	...	86	...	86
Photographs .....	...	...	...	...	...	...
	3	30	13	207	...	253
	5,527	290	2,339	213	1,612	10,581
Vertebrata	1,323	17	29	...	50	1,419
Invertebrata	1,728	...	2,126	...	182	4,036
Fossils, Minerals, and Rocks ...	1,107	146	137	...	324	1,714
Ethnological	1,366	97	634	6	1,056	3,159
Miscellaneous	3	30	13	207	...	253
Total for 1937-38.....	5,527	290	2,339	213	1,612	10,581
Dr. Waterhouse Collection .....	...	...	...	...	...	2,932
					TOTAL ...	13,513



APPENDIX H.

THE AUSTRALIAN MUSEUM.

marked Statement of Net Receipts and Payments for the Year ended 30th June, 1938.

RECEIPTS.			PAYMENTS.			Cr.
	£	s. d.		£	s. d.	
Forward 1st July, 1937	...	...	1937-38.			
dated Revenue Fund—	...	...	July 1 to June 30.			
Item 89)	18,914	4 10	By Salaries—			
Item 41) to meet cost of Basic Wage Increase	362	0 2	Scientific Administration	5,086	15 11	
ment	900	0 0	Office	1,363	14 5	
ments	29	10 0	Library	577	16 1	
ms	176	4 7	Preparators	1,088	19 8	
... ..	11	0 2	Mechanics	689	8 10	
alpha	33	7 11	Attendants	2,282	6 3	
				13,091	1 2	
			Overtime	380	11 1	
			Temporary Assistance	221	6 0	
				15,502	18 3	
			Subsidiary Staff Charges—			
			Employers' Contribution	737	14 7	
			Pension	4	19 8	
				742	14 3	
			Expenses in Connection with Buildings—			
			Insurance Premiums	167	10 3	
			Maintenance of Lawns and Grounds	41	12 0	
				209	2 3	
			Transport Expenditure—			
			Travelling Expenses	...	...	20 7 6
			General Expenditure—			
			Postal and Telegraphic Expenditure	64	10 7	
			Books, Periodicals, and Papers	520	5 5	
			Freight and Cartage	74	1 3	
			Bookbinding	99	19 8	
			Photography and Slides	19	10 7	
			Laundry Expenses	19	10 3	
			Fees to Lecturers	24	13 0	
			Minor Replacements and Additions to Plant, etc.	236	18 6	
			Purchase of Natural History Specimens, etc.	130	14 5	
			Purchase and Construction of Storage Racks and Boxes	124	4 5	
			Purchase of new Display and Storage Cases etc.	1,520	5 1	
			Stores, Stationery, and Sundry Charges	650	16 9	
			Publicity and Advertising Lectures, etc.	19	13 6	
			Publications—Magazines and Aboriginal Decorative Art, Publication and Distribution	437	11 7	
				3,953	15 2	
			Balance at 30th June, 1938...	...	...	128 12 2
				£20,656	0 7	
			By Purchase of Projector and Films, Camera and other equipment	...	...	569 8 0
			Balance at 30th June, 1938	...	...	515 0 9
				£1,114	8 9	

the provisions of Section 11, of the Australian Museum Act, 1902, and found correct.

1938.

(Signed) J. A. MOORE,
Deputy Auditor-General.

APPENDIX I.
THE AUSTRALIAN MUSEUM.
REVENUE ACCOUNT.

Dr.		Period 1st July, 1937, to 30th June, 1938.		Cr.	
		£	s. d.	£	s. d.
To Scientific Administration—					
Scientific Staff Salaries, Stores and Services...	8,610 8 0				
Articulators do do	911 7 10				
Taxidermists do do	1,270 5 0				
Collecting Specimens	18 18 6				
Preservation of Specimens	24 10 3				
Freights and Charges—Specimens, etc.	76 0 10				
Photography and Slides	22 10 8				
	10,934 7 1				
Office Administration—Office Staff, Salaries, etc.	1,393 19 9				
	1,393 19 9				
Publicity	30 9 5				
General Expenses	64 16 4				
Stationery	47 14 11				
Postages and Telegrams	67 14 4				
Insurances	167 10 3				
	378 5 3				
Library Administration—Salaries, etc., Book-binding and Sundries	797 15 1				
	797 15 1				
General Administration—					
Artificers—Salaries, Stores, etc.	757 5 1				
Attendants—Salaries, Overtime, Assistance, etc.	3,013 4 2				
Working Expenses—Stores, etc.	154 6 7				
Motor Lorry Expenses	26 3 8				
Building, Repairs and Maintenance	7 15 2				
Electric Fittings, Repairs and Maintenance...	20 6 9				
	3,979 1 5				
Pension	4 10 8				
	4 10 8				
Lectures—Fees and Expenses...	85 16 0				
	85 16 0				
Depreciation—Furniture, Equipment, and Plant	321 5 5				
	321 5 5				
Publications—					
Magazine—Cost and Publishing and Distributing	936 0 8				
Less Stocks on Hand	767 9 4				
	168 11 4				
Postcards—Cost and Publishing	197 12 6				
Less Stocks on Hand	188 10 4				
	9 2 2				
"Records" and other Publications—Cost and Publishing	330 18 4				
Less Stocks on Hand	201 6 10				
	128 11 6				
	£18,211 14 8				
					£18,211 14 8
By Interest—					
Funds Invested—					
Sydney City Council Deposit	4 2 6				
Australian Consolidated Inscribed Stock	25 7 6				
	29 10 2				
Sales of Publications—					
Museum Magazine	162 11 5				
Museum Postcards	18 11 11				
"Records" and other Publications	19 0 7				
	200 3 3				
Donations	11 9 2				
	11 9 2				
Balance	17,970 11 1				
	241 3 1				
	£18,211 14 8				

Wholly set up and printed in Australia, by THOMAS HENRY TENNANT, Acting Government Printer, Sydney, New South Wales.
[1s. 3d.]