REPORTS

OF THE

COUNCIL AND AUDITORS

OF THE

ZOOLOGICAL SOCIETY

OF LONDON,

READ AT THE ANNUAL GENERAL MEETING,

APRIL 30тн, 1860.

LONDON:

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RED LION COURT, FLEET STREET.

1860.

REPORT OF THE COUNCIL.

In accordance with the provisions of the Charter, the Council of the Zoological Society have the pleasure of submitting to the Society their Thirty-first Annual Report upon the progress of the Institution during the twelve months which have elapsed since the last Anniversary.

I. GENERAL ESTABLISHMENT.

1. FELLOWS AND ANNUAL SUBSCRIBERS.

The number of Fellows, Fellows Elect, and Annual Subscribers at the present time amounts to 1709. Of these there are—

Compounders, paying	£20				223
Ditto ditto	£30				269
Paying annual contrib	utions	of	£2		309
Ditto dit			£3		674
Dormant					143
Admission-fees unpaid	l				22
Ditto remitt					10
Annual Subscribers, p	aying	£3			59
					1709

Seventy-five Fellows have been elected since the last Anniversary, and six have been readmitted under the provisions of the By-Laws, Chap. 1, Sect. 9.

The number of Deaths during the same period has

been 48.

The number of Resignations has been 27; and the Removals ordered by the Council, in conformity with the Laws of the Society, amount to 22.

The number of Candidates for admission is 12.

2. FINANCES.

a. Income.

The Receipts of the past year amounted to the sum of £15,194 15s. 2d., which, added to the sum of £1420 16s. 3d., the balance carried over from the previous year, made a total amount of £16,615 11s. 5d. to be placed under the

Cash at the Banker's	£ 1784 4563	4	9
	6348		
The Liabilities at the same period were esti- mated at	1522	8	6
Leaving a Cash Balance in favour of the Society of	4825	16	1
This result presents an increase of £176 12s. pared with the same day in the preceding year	6 <i>d</i> . a	s co	m-

II. PUBLICATIONS.

With a view of securing greater regularity in the issue of the printed Proceedings, which are now become the principal scientific organ of the Society, and have lately derived increased importance from the large number and great value of the communications made to the scientific meetings, some little alteration has been made in the mode of publication adopted since the last Anniversary. The Proceedings, both with and without Illustrations, are now published regularly three times in the year. The first Number, issued in April, gives the papers read during the months of January, February, and March; the second, published in July, those read up to the termination of the annual session of the Society; and the third, published in the following February, contains the communications made to the autumnal meetings before Christmas, and completes the Volume for the preceding year. The Volume for last year is now upon the table. It contains a large number of papers relating to every branch of Zoology. The Illustrative Plates, forty-eight in number, represent the most novel and interesting subjects of these communications.

The First Part of the Proceedings for the present year

is also on the table.

Of the Transactions, since the last Anniversary, Part VI. of Volume IV. has been issued. It contains all the smaller papers read before the Society, which the Committee of Publication had decided upon publishing in this form up to the end of 1858. They relate principally to Ornithology,

Wolf's happiest style. The paper of Prof. Owen on the Gorilla, a full abstract of which has already appeared in the Proceedings, will form the chief subject of the Seventh Part, with which it is intended to complete the Fourth Volume of the Transactions.

A printed list, giving an account of the Society's Scientific Publications, with full information as to the prices, mode of publication, and other particulars, has also been prepared and extensively circulated. There is every reason to believe that an increased sale of the Society's publications will ensue from the means thus taken for giving

greater publicity to their merits.

The Council feel that the best thanks of the Society are due to the gentlemen who serve upon the Committee of Publication for the pains they take in effecting these improvements in the method of the Society's Publications, and in arranging the general business of the Scientific Meetings.

III. LIBRARY.

A rearrangement of the volumes which comprise the valuable Scientific Library of the Society has been effected within these last few weeks. The Transactions, Journals, and Periodicals are now placed in the Council-room on the first floor, and the general works on Natural History in the room above. A complete Catalogue—a work which was commenced some time since—will, it is expected, shortly be ready, and, the Council hope, will render the Library, now newly organized, more useful to the general body of Members, to whom it is always open during the Office-hours.

The valuable series of original Water-colour Drawings by Mr. Joseph Wolf, illustrative of eighty-two of the rarest and finest species which have lived in the Society's Gardens during the last ten years, has also been named, numbered, and catalogued. They are now kept in two portfolios in the Council-room. The following is a list of the

species represented in this beautiful series :-

LIST OF ORIGINAL WATER-COLOUR DRAWINGS BY WOLF IN THE LIBRARY OF THE ZOOLOGICAL SO-CIETY OF LONDON.

- 1. Californian Deer. Cariacus punctulatus.
- 2. Large-eared Brocket. Coassus auritus.
- 3. Syrian Bear. Ursus syriacus.
- 4. Ocelot. Felis pardalis.
- 5. Ocelot. Felis pardalis.
- 6. Ocelot. Felis pardalis.
- 7. Serval. Felis serval.
- 8. Leopards. Felis leopardus.
- 9. The Eland. Oreas cana.
- 10. The Eyra. Felis eyra.
- 11. Apteryx. Apteryx mantelli.
- 12. Leucoryx. Oryx leucoryx.
- 13. Wapiti Stag. Cervus canadensis.
- 14. Giraffe and young. Camelopardalis giraffa.
- 15. Persian Gazelles. Gazella subgutturosa.
- 16. The Leucoryx (young). Oryx leucoryx.
- 17. Stanger's Monkey. Cercopithecus stangeri.
- 18. Fire-backed Kaleege. Gallophasis vieilloti.
- 19. Female Barasingha Deer. Cervus duvaucellii.
- 20. White-headed Casarca. Casarca leucoptera.
- 21. Horsfield's Kaleege. Gallophasis horsfieldii.
- 22. Ring-necked Pheasant. Phasianus torquatus.
- 23. Chimpanzee. Troglodytes niger.
- 24. Canadian Lynx. Lynx canadensis.
- 25. Angolan Vulture. Gypohierax angolensis.
- 26. Spotted Eagle. Aquila nævia.
- 27. Green Boa. Xiphosoma caninum.
- 28. Azara's Fox. Canis azaræ.
- 29. The Weka Rail. Ocydromus australis.
- 30. The Thar Goat. Capra jemlaica.
- 31. Cheetah. Felis jubata.
- 32. Red Potamochere. Potamochærus penicillatus.
- 33. The Norwegian Lynx. Lynx borealis.
- 34. Ashy-headed Goose. Chloëphaga poliocephala.
- 35. Malacca Deer. Cervus rusa.
- 36. Caspian Snow-partridge. Tetraogallus caspius.
- 37. The Yaguarundi. Felis yaguarundi.
- 38. The Eland (young). Boselaphus oreas.
- 39. Great Ant-eater. Myrmecophaga jubata.
- 40. Great Ant-eater. Myrmecophaga jubata.
- 41. Egyptian Cat. Felis chaus.
- 42. Wagati Cat. Felis viverrina.
- 43. Painted Ocelot. Felis picta.

44. The Rhea (young). Rhea americana.

45. Walrus. Trichecus rosmarus.

- 46. White-tailed Deer. Cervus leucurus.
 47. Lioness and young. Leo barbarus.
- 48. Hippopotamus. Hippopotamus amphibius. 49. American Skunk. Mephitis mephitica.

50. Caracal. Felis caracal.

- 51. The Thylacine. Thylacinus cynocephalus.
- 52. Indian Jabiru. Mycteria australis.53. Iceland Falcon. Falco islandicus.
- 54. Greenland Falcon. Falco grænlandicus.

55. Caracal. Felis caracal.

56. Diard's Cat. Felis diardi.

- 57. Indian Civet. Viverricula indica.
- 58. The Bassaris. Bassaris astuta.

59. Diard's Cat. Felis diardi.

60. Young Brush Turkey. Talegalla lathami.

61. The Pudu Deer. Cervus pudu.

- 62. Painted Spur-fowl. Galloperdix lunulata.
- 63. The Clouded Tiger. Felis macrosceles.
- 64. The Horned Cerastes. Cerastes cornutus.

65. The Clotho. Clotho nasicornis.

66. Great Bustard. Otis tarda.

67. Japanese Pheasant. Phasianus versicolor.

68. Wombat. Phascolomys ursinus.

69. Saker Falcon. Falco sacer.

70. Saker Falcon. Falco sacer.

- 71. Clouded Tigers. Felis macrosceles.
- 72. Mantchurian Crane. Grus montignesia.73. Bosch-Vark. Potamochærus africanus.
- 74. Black-necked Swan. Cygnus nigricollis.

75. Alpacas. Lama pacos.

- 76. Impeyan Pheasant (young). Lophophorus impeyanus.
- 77. Black-backed Kaleege (young). Gallophasis melanotus.
 78. Horsfield's Kaleege (young). Gallophasis horsfieldii.
- 79. White-crested Kaleege (young). Gallophasis albicristatus.

80. Cheer (young). Catreus wallichii,

81. Punjab Sheep. Ovis cycloceros. 82. Mooruk, Casuarius bennettii.

The principal Donations to the Library since the last Anniversary consist of Transactions and Proceedings from the following Institutions:—

The Royal Society of London.

The Linnean Society of London.

The Royal Geographical Society of London.

The Horticultural Society of London.

The University College, London.

The Entomological Society of London.

The Royal Society of Literature.

The Literary and Philosophical Society of Liverpool.

The Tyneside Naturalists' Field Club.

The Dublin University Zoological and Botanical Association.

The Royal Irish Academy, Dublin.

The Academy of Natural Sciences of Philadelphia.

The Boston Society of Natural History.

The American Academy of Arts and Sciences, Boston.

The Academy of Science, St. Louis.

The American Philosophical Society, Philadelphia.

The Imperial Academy of Sciences of Vienna.

The Royal Academy of Arts of Berlin.

The University of Basle.

The Society of Arts and Sciences of Batavia.

The Royal Academy of Sciences of Göttingen. The Royal Academy of Sciences of Stockholm.

The Royal Academy of Sciences of Munich.

The Senckenbergian Society.

The Zoological Society, Amsterdam.

The Natural History Society of Bonn.

The Royal Society of Tasmania.

Mémoires, Journals, Bulletins, Annals, and Reports have also been received from

The British Association for the Advancement of Science.

The Linnean Society of London.

The Royal Geographical Society of London. The Royal Agricultural Society of England.

The Geological Society of London.

The Society of Arts.

The Royal College of Physicians.

The Royal Asiatic Society of Great Britain.

The Royal Institution of Great Britain.
The Photographic Society of London.

The Art-Union of London.

The Statistical Society of London.

The United Service Institution.

The Royal Institution of Cornwall.

The Leeds Philosophical and Literary Society.

The Royal Dublin Society.

The Geological Society of Dublin.

The Imperial Academy of Sciences of St. Petersburgh.

The Imperial Society of Naturalists of Moscow.

The Society of Natural Sciences of the Canton of Vaud. The Physical and Natural History Society of Geneva.

The Royal Society of Sciences of Neufchatel.

The Royal Society of Sciences of Liège.

The Royal Academy of Sciences of Belgium.

The Imperial Society of Agriculture and Natural History of Lyons.

The Society of Natural Sciences of Strasburg.

The Netherlands Entomological Society.

The Zoological Gardens, Frankfort.

The Dutch Natural Society, Carlsruhe.

The Imperial Academy of Sciences and Arts of Lyons.

The Royal University of Christiania, Norway.

The Asiatic Society of Bengal.

The Smithsonian Institution, Washington.

The Lyceum of Natural History of New York.

The Boston Society of Natural History, U.S.A. The Academy of Natural Sciences, Philadelphia.

The Franklin Institute.

Donations have also been received from the Council of the City of Manchester; The Secretary at War, Washington, U.S.A.; The Surgeon-General, U.S. Army; The Commissioner of Patents, Washington, U.S.; Lord Clermont; Professor Owen, V.P.Z.S.; Fred. Ouvry, Esq., F.Z.S.; John Hogg, Esq.; Henry Graves, Esq., F.Z.S.; Dr. Cobbold; Professor Felipe Poey; Thomas Bland, Esq.; Dr. F. H. Troschel, For. Mem.; Cuthbert Collingwood, Esq.; Odo Russell, Esq.; Professor J. Van der Hoeven, For. Mem.; Professor Duméril, For. Mem.; Professor F. S. Holmes; Isaac Lea, Esq., LL.D., Corr. Mem.; Joseph Leidy, Esq., M.D., Corr. Mem.; A. Newton, Esq., F.Z.S.; the Editor of the 'Athenæum'; the Editor of 'The Ibis'; the Editor of the 'Natural History Review,' Dublin; the Editor of the 'Literary Gazette'; the Editors of the 'Atlantis,' and the Editor of the 'Pharmaceutical Journal.'

IV. GARDEN ESTABLISHMENT.

a. Works.

The Reserve-fund having been raised to the full amount of £5000 Reduced 3 per Cents. by the purchase of the

£500 Stock required to complete that amount in January 1859, as already mentioned, the Council resolved to devote a portion of the surplus Income of the Society to the erection of substantial buildings to replace the temporary sheds in which many of the animals are at present located, and to other works tending to the permanent improvement of the Gardens. The New Zebra- and An-TELOPE-House, the first section of which was completed and opened to the public in July last, is the most important building undertaken with this object. In the course of the present and next succeeding summer the Council hope to extend this edifice to about three times its present dimensions, and thus to be able to bring into one building the full series of the different varieties of Antelopes possessed by the Society, the beauty of which, from the fact of their being scattered about in different parts of the Gardens, and often placed in very inconvenient situations, has hardly hitherto been fully appreciated by the public. The Council have every reason to believe that the whole House, when thus finished, will not only be the most durable and most convenient of any in the Society's Gardens, but will also be by no means deficient in architectural merits. cost of the section of this building now in use, exclusive of the courts, was £1100; that of the whole building when completed, it is estimated, will amount to about £2500.

Another important undertaking to which the Council have also turned their attention during the past year has been the improvement of the Superintendent's House in the North Gardens. The sleeping-rooms on the groundfloor, which existed in the former house, were condemned by the Society's Medical Officer as likely to be injurious to the health of those using them, and the whole accommodation was hardly such as was proper for a person occupying the responsible station of the Superintendent of the Society's Gardens. In rebuilding this house, with the addition of an upper story (which has been effected under contract with Messrs. Lucas at a cost of £600), the Council believe that they have fully remedied both these deficiencies. By the removal of the Greenhouses from their original position, alongside and within a few feet of the Superintendent's House, to a vacant space near the west entrance for workmen on the south side of the Gardens (an alteration which was effected during the past autumn, at a cost

of £174 16s. 6d.), the Council believe that they have accomplished a further improvement of the Superintendent's residence in a sanatory point of view, and at the same time gained the additional advantage of having brought together two of the Gardening Establishments heretofore inconve-

niently placed on different sides of the road.

The three works just mentioned, and the construction of a new main drain for the upper portion of the South Gardens, at a cost of £234 6s. (which was a necessity following upon the erection of permanent buildings upon this portion of the grounds), have all been executed by Messrs. Lucas for the Society. At the same time the Society's own staff of workmen have been kept fully employed. Besides the general repairs and renewals which the numerous buildings and inclosures in the Society's Gardens stand continually in need of, the following special works have been carried out by the Society's ordinary workmen since the last Anniversary:—

- I. The building of a Storehouse adjoining the New Antelope House, for holding hay, corn, and provisions for the animals, at a cost of about £40.
- II. The construction of a Left Wing to the Sambur Deer House on the north side of the Gardens, with accommodation for gentlemen, &c. behind it, at a cost of about £83.
- III. The taking down of the Old Pig-sties on the north side of the Gardens, and the construction of an entirely new house for the Suidæ on the south side, near the Gull-ponds, at a total cost of about £135.

The new Swine-house has seven compartments, and enables the Council to bring together into one convenient spot the different species of the Suidæ, or Swine-family, which have hitherto been placed in different parts of the Gardens.

IV. The removal of the Brush-Turkeys' Enclosure to the south side of the Gardens near the Pheasant Aviary.

For these last three seasons the Brush-Turkeys (Talegalla), although they have regularly built their mound and laid their eggs, have not succeeded in rearing their young,

owing, as the Council believe, to their damp and cold position. With the advantage of a warmer situation, the Council hope that better success may attend the reproduction of these interesting birds during the present season.

V. The thorough repair and improvement of the Impeyan Pheasants' Inclosure. The inside of this Inclosure has been planted with shrubs, and covered with light soil, so as to give the birds an opportunity of dusting. The whole of the old upper network, being rotten and worn out, has been necessarily replaced with new, and galvanized iron wire-netting has been used as a more durable material for the bottoms of the divisions.

The improvement thus made will, it is hoped, induce these birds to breed more freely than they have hitherto done in the Gardens. As the market value of the Impeyan Pheasant is considerable, there is every reason to believe that the cost of these repairs (estimated not to have exceeded £60) will, in the event of tolerable success with the birds, be more than fully repaid to the Society.

- VI. The painting and thorough repair of the New Aviary, performed during the summer and autumn of 1859.
- VII. The building of a large and commodious Slate Tank for the Japanese Salamander, at a cost of £12.

In concluding the portion of their Report relating to works, the Council cannot omit to ask for the special thanks of the Society to C. Clifton, Esq. This gentleman has not only placed his fine collection of Pea-fowls, which embraces all the known species and varieties of these birds, for exhibition in the Society's Gardens, but has also erected, at his own expense, a convenient Aviary for their reception.

b. MENAGERIE.

The very full Report given of the state of the Society's Menagerie at the last Anniversary (every species then living in the Gardens having been noticed in order under its proper scientific name), renders it unnecessary for the Council to go into minute particulars on this subject on the present occasion.

They may state, however, that on the whole the Menagerie remains in a very satisfactory condition. Though the number of deaths during the past severe winter has been considerable, the Council are happy to be able to say that (with the exception of the Elk and the Honduras Turkey) no species of importance have been lost out of the large series enumerated in their last year's Report. On the other hand, some very fine additions to the Society's unrivalled collection of living animals have been made since that period, as will be seen by the following

LIST OF THIRTY-TWO ANIMALS EXHIBITED FOR THE FIRST TIME IN THE GARDENS OF THE ZOOLOGICAL SOCIETY OF LONDON, BETWEEN THE 29TH OF APRIL, 1859, AND THE 29TH OF APRIL, 1860.

I. MAMMALIA.

*1. The Kiang (Equus hemionus), Thibet.

*2. The Javan Wild-hog (Sus vittatus), Java.

3. The American Souslik (Spermophilus guttatus), North America.

4. The Prairie-Dog (Arctomys ludovicianus), N. America.

5. The Cape Guevei Antelope (Cephalophus monticola), South Africa.

6. The Yellow-bellied Flying Opossum (Belideus flaviventris), Australia.

7. The Squirrel-like Flying Opossum (Belideus sciureus),
Australia.

AVES.

- 8. The Chanting Falcon (Melierax polyzonus), West Africa.
- 9. The African Buzzard (Buteo tachardus), North Africa.
- 10. The Chestnut and Black Weaver (Hyphantornis castaneo-fusca), West Africa.

11. The Japanese Hawfinch (Coccothraustes melanurus),
Japan.

12. The Japanese Bunting (Emberiza fucata), N. Asia.

- 13. The Red-billed Toucan (Ramphastos erythrorhynchus), Demerara.
- 14. The Keel-billed Toucan (Ramphastos carinatus), Mexico.
- 15. The Ganga Cockatoo (Callocephalum galeatum), Australia.

- 16. Ducorps' Cockatoo (Cacatua ducorpsii), Salomon Islands.
- 17. The Humeral Podargus (Podargus humeralis), South Australia.
- 18. The Mountain Ground-Dove (Geotrygon montana), Brazil.
- *19. The Shoe-bird, or Whale-headed Stork (Balæniceps rex), Central Africa.
- 20. The Bald Ibis (Geronticus calvus), South Africa.
- 21. The Glaucous Gull (Larus glaucus), British coast.

REPTILIA.

- 22. Hamilton's Terrapin (Emys hamiltoni), The Ganges.
- 23. The Gangetic Terrapin (Emys tectum), The Ganges.
- 24. Green Tree-Snake (Philodryas viridissimus), S. America.
- 25. The Coral Snakes (Oxyrrhopus trigeminus), Brazil.
- 26. Reinwardt's Snake (Calopisma reinwardti), N. America.
- 27. Water Lizard (Hydrosaurus salvator), E. Indies. 28. The Horned Toad (Ceratophrys cornuta), Brazil.
- *29. The Japanese Salamander (Sieboldia maxima), Japan.

PISCES.

- 30. The Short-nosed Hippocamp(Hippocampus brevirostris), Portugal.
- 31. The Viviparous Blenny (Zoarces viviparus), English coast.

CRUSTACEA.

32. The American King-Crab (Limulus polyphemus), United States.

No better evidence of the general good condition of the Menagerie during the past year can be given than the following list of 23 species of Mammals and 25 of Birds, which have bred in the Society's Gardens since the last Anniversary.

MAMMALS.

1. QUADRUMANA.

1. Rhesus Monkey (Macacus rhesus).

2. CARNIVORA.

2. Puma (Felis concolor).

3. Leopard (Felis leopardus).

4. Banded Mungoos (Herpestes fasciatus).

5. Pale Genet (Genetta senegalensis).

Common Wolf (Canis lupus).
 Silver Fox (Vulpes argentatus).

9. Hybrid Bear $\begin{cases} Ursus \ arctos \ \mathcal{F} \end{cases}$.

— americanus \mathfrak{P} .

3. ARTIODACTYLA.

10. Red River-hog (Potamochærus penicillatus).

11. Nylghau (Portax picta).

12. Eland (Oreas canna).

13. Dorcas Gazelle (Gazella dorcas).

14. Punjab Sheep (Ovis cycloceros).

15. Moufflon (Ovis musimon).

16. Giraffe (Camelopardalis giraffa).

17. Llama (Lama peruana).18. Alpaca (Lama alpaca).

19. Wapiti Deer (Cervus canadensis). 20. Sambur Deer (Cervus aristotelis).

21. Hog-deer (Hyelaphus porcinus).

4. RODENTIA.

22. American Flying Squirrel (Sciuropterus volucella).

23. Chinchilla (Chinchilla lanigera).

BIRDS.

24. Zebra Grass-Parrakeet (Melopsittacus undulatus).

25. Bronze-winged Pigeon (Phaps chalcoptera).

26. The Wonga-Wonga Pigeon (Leucosarcia picata).

27. Hybrid Pigeon (Columba gymnophthalma and C. maculosa).

28. Crested Pigeon (Ocyphaps lophotes).

29. Impeyan Pheasant (Lophophorus impeyanus).

30. Cheer Pheasant (Catreus wallichii).

31. Purple Kaleege (Gallophasis horsfieldii).
32. Black-backed Kaleege (Gallophasis melanotus).

33. White-crested Kaleege (Gallophasis albicristatus).

34. The Emeu (Dromæus novæ hollandiæ).

35. The Ashy-headed Goose (Bernicla poliocephala).

36. The Black Swan (Cygnus atratus).

37. The Black-necked Swan (Cygnus nigricollis).

38. Hybrid Shieldrake $\begin{cases} Tadorna\ vulpanser \ \delta \end{cases}$.

39. Summer Duck (Aix sponsa).

40. Mandarin Duck (Aix galericulata).

41. Pintail (Dafila acuta).

42. Redbilled Duck (Pacilonetta erythrorhyncha).

43. Bahama Duck (P. bahamensis).

44. Hybrid Dusky-duck (A. boschas and A. obscura).

45. Yellow-billed Duck (A. flavirostris).

Garganey (Querquedula circia).
 Shoveller (Spatula clypeata).

48. Hybrid Crested Duck (Fuligula cristata and F. nyroca).

In reviewing the list of animals exhibited for the first time during the past twelve months, the Javan Boar (Sus vittatus) claims some further remarks. The Society have obtained their first specimen of this animal together with a fine male of the White-lipped Peccary (Dicotyles albirostris), from the Society 'Natura artis magistra' of Amsterdam, in exchange for a female Red River-hog. This addition raises the series of Suidae, as now arranged in the new Swine-house, to seven in number, which exemplify nearly all the most striking types of that family; namely:—

1. Sus scrofa, Europe and Barbary.

2. — vittatus, Java.

3. Potamochærus africanus, S. Africa.

4. — penicillatus, W. Africa.

5. Phacochærus æthiopicus, Port Natal.

6. Dicotyles torquatus, Southern and Central America.

7. — albirostris, South America.

The Council are also able to state that there is a prospect of their shortly acquiring an eighth species, the extraordinary Babirussa of Celebes. Two other members of the group, the Wild Boar of India (Sus cristatus), and that of Japan (Sus leucomystax), the latter of which has never been introduced into Europe, would form a desirable complement to this series; and the Council hope that some of the Society's numerous correspondents in the East may be induced to assist them in thus perfecting their collection of this interesting family.

The fine female example of the KIANG of Thibet, probably the true Equus hemionus of Pallas, was brought to England for the Society by the exertions of Major W. E. Hay, F.Z.S., and forms a handsome addition to the group of Equidæ, the members of which are now arranged side by side in the New Zebra- and Antelope-house. The Society were already in possession of examples of the Gurkhûr or Wild Ass of Cutch, and of the Persian and Syrian varieties of the Hemippe (Equus hemippus), as also of the Burchell's Zebra and Quagga of Southern Africa. species only, namely the Common Zebra and the Abyssinian Wild Ass, are now wanted to make a perfect series of all the Equidæ known to exist in a state of nature. With the kind assistance of His Excellency Sir George Grey in South Africa, and Consul Petherick in Eastern Africa, it is hoped that these deficiencies may be shortly supplied.

The Gigantic Salamander of Japan (Sieboldia maxima) and the extraordinary Shoe-bird of the White Nile (Balæniceps rex) are two of the most singular types in their respective classes which have been added to the Society's Menagerie for many years. The Salamander was previously existing in several of the Continental collections, but the Balæniceps has never before been brought alive to Europe. The interest excited by the arrival of these animals has caused a large increase in the number of visitors

to the Society's Gardens during the past month.

LIST OF DONORS AND DONATIONS TO THE MENAGERIE.

HER MAJESTY THE QUEEN. The Viscount Hill. An African Leopard. Two Barbary Deer. A Crowned Crane.

Sir George Grey, K.C.B., F.Z.S.

An Egyptian Goose.

A Muntjac Deer.

An Ibis.

Two Springboks.

Two Ostriches (young).

Sir S. Morton Peto, Bart., M.P.

A Badger.

His Excellency Zulfucar Pacha.

A Striped Hyæna. A Paradoxure.

Sir David Baird, Bart.

в 2

Major W. E. Hay, F.Z.S. Dr. Bennett, F.Z.S.

Equus kiang. A Flying Phalanger. Two Mooruks. Snails.

Andrew Arcedeckne, Esq., F.Z.S.

Capt. Daubeney. W. Houlder, Esq. B. D. Gibbs, Esq. J. R. A. Douglas, Esq. H. Cooper, Esq. S. Redman, Esq. The Smithsonian Institution, Washington, U.S.A.

Sir Malcolm Macgregor. — Skidmore, Esq.

James Thomson, Esq. Dr. Shortt, F.Z.S. Miss Prichard. M. J. Harpley, Esq., R.A. H. E. T. Orchard, Esq. Richard Tress, Esq., F.Z.S.

W. R. Sandbach, Esq. H. Goodwin, Esq. John Whitfield, Esq. Dr. Bowerbank. J. T. Davidson, Esq. J. G. Leeming, Esq.

John Hawkshaw, Esq., F.Z.S. Four Gannets. Mr. Pell. R. Ellis, Esq. G. Brand, Esq. Arthur J. E. Russell, Esq., M.P., F.Z.S.

F. Roxburgh, Esq., F.Z.S. Russell Sturgis, Esq., F.Z.S. W. H. Russell, Esq. Hon. C. A. Ellis, F.Z.S. Lieut. A. Kinloch. Mrs. Henry.

Three King Crabs (Limulus). A Barbary Wild Boar. A Bonnet Monkey. A Macaque Monkey. An Indian Jackal. A Macague Monkey. A Herring Gull.

Two Virginian Opossums. A Coati mondi.

A Perch, a Roach, two Chubs, three Lampreys, a Loach.

A Lepidosiren. An Indian 'Sammy' Bull.

A Common Raven. Two Hill Minas. Two Entellus Monkeys.

Thirty Roach, five Perch, three Bleak, two Pike.

An Ocelot. A Malbrook Monkey. A Coral Monkey. A Green Lizard. A Chamæleon. Two Red-headed Cardinals.

A Black-crested Cardinal.

A Nonpareil. Two Thick-knees. A Chamæleon. A Duyker Bok.

A Blue and Yellow Macaw. Eight Actinia. Two Chinese Geese. An Indian Bear. Two Common Herons. A Cinereous Eagle. Two Groups of Corynactis.

Mrs. Forster. Mrs. Egan. Major Verner. Mr. Jamrach. Joseph Davie, Esq. Capt. Abbett.

Mr. Bartlett. Mr. Du Pasquier. Thos. Cooke, Esq. H. D. Willock, Esq.

Mr. Fletcher. W. Hindley, Esq. Mr. Church. Major Bent. Dr. F. Müller.

J. C. Clarke, Esq. George MacLeay, Esq., F.Z.S. Six Wonga Wonga Pigeons.

H. Grant, Esq. Chas. Hutton, Esq. D. A. Melville, Esq. Master Abbott. J. T. Smith, Esq. Chas. Fitzgerald, Esq. George Moss, Esq. David Ross, Esq. Wm. Maudslay, Esq. Henry Pollock, Esq. Mr. Davidge. Mrs. Malcolm. Capt. R. F. Burton. G. Furness, Esq. Geo. Moss, Esq. Rev. R. T. Lowe, Corr. Mem. Z.S.

S. C. Mansfield, Esq. Mrs. Carew.

Two Groups of Corynactis. Water Snails and Valisneria. Two Finches. An Elegant Parrakeet. A Monkey. Two Horned Toads (Ceratophrys).

A Macaque Monkey. Twelve Actinia troglodytes.

A Rhesus Monkey. A Wanderoo Monkey (Nana Sahib's).

A young Alligator. Twenty-six Anthea cereus. A Common Otter. A Bonneted Monkey.

Two Porphyrio melanotus. Two Wedge-tailed Eagles. A Guinea Baboon.

Three Bronze-winged ,, One Bush Two Turquoisine Parrakeets. Two Ichneumons.

Two Flying Squirrel Opossums. A Spotted Cavey. Eight Guinea Pigs.

A Hawk-billed Turtle. A West African Boa.

A Musk Deer.

A Crab-eating Racoon. An Axis Deer.

A Green Frog. A Land Tortoise.

A Grey-breasted Conure.

A Barred Ichneumon. A Boa Constrictor.

A Pair of Chinese Pheasants.

Eight Water Tortoises. Four Land A Capuchin Monkey. A Shieldrake.

Commander Bedingfield, R.N. A Vervet Monkey.

Stanley Grantham Hill, Esq. James Bowman, Esq. Adam Duff, Esq., F.Z.S. J. D. Llewellyn, Esq., F.Z.S. W. Goodwin, Esq. John Dawson, Esq. Mr. J. Duplin.

M. R. Hill, Esq. Mr. Carys. Dr. Henry Stevens. C. Gibson, Esq. A. Downes, Esq., Halifax, Nova Scotia.

Joseph Thornton, Esq. Proprietors of the 'Field.' L. H. Spence, Esq.

W. R. W. Halsey, Esq., F.Z.S. A Japan Peafowl.

S. Cunard, Esq. Sir John Cathcart, Bart. Richard Ansdell, Esq. T. W. Foster, Esq. T. Pinto, Esq. Donors unknown.

Capt. R. Hughes. B. J. Angell, Esq. Capt. Rayner Wallace. Mrs. Sweetman. J. Talbot, Esq. Miss Potter. L. C. Stephenson, Esq. — Nelson, Esq. John Dunn, Esq.

Mr. Harris. Mr. Chief Justice Temple. A Macaque Monkey. A Chinese Goat. Three Green Tree Frogs. Marine Animals. A Hybrid Hare. A Chinese Paradoxure. A Chinese Paradoxure. A Macaque Monkey. A Green Monkey. A Macaque Monkey. A Peregrine Falcon. A Java Deer.

Four Dusky Ducks. A Sea Eagle. A Prairie Dog. An American Falcon. Two White-eyebrowed Finches.

A Polecat. S. Gurney, Esq., M.P., F.Z.S. Twenty River Lampreys. A Dorcas Gazelle. A Great-eared Owl. An Axis Deer. A Gannet. Four Hippocampi. Fifteen Green Lizards. Two Vulpine Phalangers. Twelve Actinia crassicornis. An African Civet Cat. A Grivet Monkey. An Entellus Monkey. A Vervet Monkey. Fifty Marine Animals. A Bonnet Monkey. Ursine Dasyure. Two Rhesus Monkeys. A Piping Crow. An Australian Butcher Bird. Two Sea Mice. A Peccary. Two Curassows.

A Guan. Six Black-boned Fowls.

Conclusion.

In conclusion, the Council ask for the Society's best thanks, as well for the gentlemen composing the Committees of Audit and Finance, who have devoted much time and attention to their respective branches of the Society's business, as for the persons comprised in the above long List of Donors to the Menagerie. Among the latter, they cannot avoid particularizing the names of His Excellency Sir George Grey, Governor of the Cape Colony, and His Excellency William Dougal Christie, H.M.'s Minister to the Brazils; of whose numerous and valuable donations they have endeavoured to show some acknowledgment by presenting to these gentlemen the Silver Medal of the Society.

Both these gentlemen continue to take a lively interest in the Society's affairs, and Sir George Grey, on his recent departure, kindly allowed an agent of the Society to accompany him to Southern Africa, to assist in securing for the Menagerie further specimens of the many valuable Mammals and Birds which are found in the Cape Colony. Aided by so many generous friends, and the general support of the public, as testified by the increasing popularity of the Garden establishment, the Council have no fear for the future prospects of the Zoological Society of London, which is now entering its thirty-fourth year since its foundation.

REPORT

OF THE

AUDITORS OF THE ACCOUNTS,

Appointed January 5, 1860.

THE Committee of Auditors have carefully examined the Accounts of the Society for the year ending December 31, 1859, and having inspected the Books and seen Vouchers for all the Payments ordered by the Council during the year, now lay before the Society an Abstract of such Accounts, together with a Statement of the Assets and Liabilities, and their Report thereon.

RECI	EIPTS.		,
Balance brought from December 31, 1858			£ s. d. 1,420 16 3
Belonging to years 1849 Admission Fees	£ s. d.	£ s. d. 5 0 0	
1849 Admission Fees 1855 Admission Fee Proceedings Garden Sales	5 0 0 1 12 0		
1856 { Proceedings	1 18 0 1 10 0	9 12 0	
Admission Fees Annual Subscriptions Ivory Ticket	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		
1857 Transactions Museum Sales Proceedings Garden Sales	0 15 0 10 8 6		
Admission Fees	35 0 0 116 0 0	186 12 6	
Ivory Tickets	27 19 9 67 16 1	to selfinen	о зат
Museum Sales	9389 6 0	789 11 4	in the second
Rent for Refreshment Room	400 0 0 225 0 0	auty squad	Tal went
1859 Annual Subscriptions	2607 1 0 95 2 0 29 8 0	Doorself Brog	di saadi
Proceedings	9 14 0 144 7 6		
1860 Annual Subscriptions (anticipated)		14,175 11 4 25 0 0	
INCOME RECEIVED IN 1859		£15,194 15 2	15,194 15 2
			£16,615 11 5

PAYMENTS.

		Gard	ens.		Museu	m.		nera tabt.		То	tal.	
Belonging to years		2411	s.	d.	£ s	. d.	£	s.	d.			d.
1858	Rent, Rates, Taxes, &c	174 352	1 16	11	17	1 7	56 246		6	230 616		-0.00
Paid o	n account of the previous year	526	18	10	17	1 7	302	9	9	846	10	2
1859	Rent, Rates, Taxes, &c. Salaries, Wages, Gratuities, and Pensions Cost of Animals Carriage of Animals and Keepers' Expenses Expenses Provisions Menagerie Expenses New Buildings and Works connected Other Works, Repairs, and Mate-rials, &c. Garden Expenses Band Expenses Band Expenses Advertisements House and Office Expenses. Library Expenses Stationery Printing (Miscellaneous) Transactions, including Printing Proceedings do. do. Cost of Medals.	2475 617 349 101 2501 1159 1166 759 546 199 138 74	3 11 9 16 2 0 9 3 5 10 14 18	9 9 11 5 7 6 4 5 6 0 0 4 	82 12	2 0	1469 108 184 27 78	7 4 0 19 12 14	0 9 8 4 4			
Paid o	Returned Subscription					_		0	0	13,499	4	0
EXPE	NDITURE PAID IN 1859	11,175	9	9	99 13	7	3070	10	10	14,345	14	2
Paid fo	or £500 Reduced 3 per Cents, at 97 (January	7th)						485	12	6
Cash at	the Banker's, December 31, 1859. {	Genera Petty C	l Ac	Aco	int	£	1615 168	18	1 8	1,784	4	9
									£	16,615		5
					-		-		_		-	_

The Assets and Liabilities on the 31st of December 1859 were as follow:—

		_	_										
		-	Arrea	ars of		-		oital	C-	-h	T	otal.	
		evio Year		Cur	rent		ru	ided.	Ca	sh.		nai.	
	£	s.	d.	£	s. (d.	£	s. d.	£	s. d.	£	s.	
Cash at Banker's			•••••		• • • • • • • • • • • • • • • • • • • •				1784	4 9	1784	4	
Paid for £5000 Reduced 3 per Cents							4563	19 10			4563	19	1
Ann. Subscriptions	87	0	0	182								0	
Transactions	35	14	200	84	2	3					119	16	
Proceedings				225	7	6					341	13	
Ivory Tickets Garden Sales	100	2	6		11	0					750	4	(
Garden Sales											100		
			0	60		000					88	7	
Museum Sales		7	0	60	0	0							
	28	7	6	60	16	9	4563	19 10			7930		1
	28	7	6	1129	16	9	4563	19 10		Debts.	7930	8	1
Bills, &c. estimate	28 452	7	6 L	1129 JAB	16 ILI	9 9	4563	19 10	178	Debts.	7930	8	1
Bills, &c. estimate For the	d at-Gard	7 7 ens,	6 L	1129 LIAB	16 ILI	9 9	4563	19 10 £	s. 13	Debts.	7930	8	1
Bills, &c. estimate For the	d at- Gard Gener	7 7 ens,	6 L	1129 JAB	16 ILI	9 9	4563	19 10	s. 13 10	Debts.	7930	8	1
Bills, &c. estimate For the	d at-Gard	7 7 ens,	6 L	1129 LIAB	16 ILI	9 9	4563	19 10 £ 1053 266	s. 13 10	Debts.	7930	8.	1
Bills, &c. estimate For the (d at- Gard Gener Muse	ens,	6 Say Estal	1129 LIAB	16 ILI	9 9	4563	£ 1053 266 1	s. 13 10 11	Debts. d. 7 11 0	7930 £	8.	1 d
Bills, &c. estimate For the (d at- Gard Gener Muse	ens,	o 6 L L say Estal	IAB	16 ILI	0 9	4563	19 10 £ 1053 266 1	s. 13 10	Debts. d. 7 11 0	7930 £	8.	1 d

Particulars of Payments in 1859.

			nging to			-	- 2	
		vious ear.	Curr			Tot	al.	
Rent, Rates, Taxes, &c.:-	£	s. d.	£	8.	d.	£	8.	-
Gardens		1 11	523	4	5	} 923		
Salaries, Wages, Pensions, and Gratuities:—	50	0 3	169	18	7	5 920		2
Gardens			2,475	3	9	1		
General Establishment			2,475 1,469	7	9	} 3,944		
Cost of Animals	3	6 6	617	11	9	620	18	
Freight, &c	14	10 0)		
Freight, Dock Charges, and Gratuities,								
£71 16s. 4d.; Carriage of Animals and Keepers' expenses (including £150						363	19	1
for the Kiang from India), £277						1		
13s. 7d			349		11	1		
Provisions	179	16 8	2,501	2	7	2,680	19	
Straw, £27; Sea-water and Carriage, £13								
10s.; Coals and Coke, £19 8s. 6d.;								
Water Supply, £25; India Rubber								
Piping, £18 6s. 8d.; Drugs, £6 4s. 3d.; Miscellaneous, £16 5s. 1d		14 6				2		
Straw, £351 8s.; Labourers' Wages,	120	0			• • • •			
£338 18s. 5d.; Sea-water and Car-								
riage, £60 12s.; Coals, £39 10s.;			-	1				
Coals for Engine, £105 16s.; Bird Sand, £18; Coke, £56 16s.; Shoeing,						Page 1		
£12 98. 6d			983	9	11	1,284	15	
Water Supply, £25; Mops, Brooms, and				0		1		
Brushes, £25 12s.; Oil, Soap, and								
Candles, £12 9s. 2d.; Labels, £15 6s. 4d.; Iron Hurdles, £16 3s. 4d.;			1					
Sawdust, £12; Saddlery, £5 6s. 9d.;			1					
Miscellaneous, £63 13s			175	10	7	j		
Veepers' Dresses			101	16	5	101	16	
Materials	25	15 6		100	100	1		
Materials, &c., £564 6s. 3d.; Wages,					• • • •	893	2	1
£303 1s. 2d			867		5	3		
New Buildings and Works connected			1,166	9	4	1,166	9	
Brooms	0	18 0)		
Wages, £371 19s. 11d.; Plants and		-0 0						
Shrubs, £117 78. 6d.; Seeds, £14						38.03		
9s. 4d.; Brooms and Mats, £6 9s.; Loam, Turf, and Sand, £7 2s. 4d.;						> 547	3	
Flower Pots, Water Pots, Spades, &c.,								
£7 78.; Sundries, £21 10s. 5d			546	5	6			
House and Office Expenses :-			1					
For the Gardens.—Medical attendance on	12	4 9						
Keepers, £20; Subscription to North								
London Hospital, £5 5s.; Gas, £4								
15s. 3d.; Soap and Candles, £9 10s.;								
Keepers' Washing, £5 6s. 7d.; Mis- cellaneous, £30 1s. 6d			74	10				
For Hanover Square,-New Carpets and			1.	18	*	271	3	1
Floor Cloth, £31 18s.; Coals and						-/-		
Wood, £21 9s.; Oil, Soap, and Can-			1217					
dles, £11 13s.; Tea, Coffee, &c., at Evening Meetings, £12 1s. 9d.; Post-								
ing Reports and Balloting Papers, £12								
15s. 3d.; Postages and Stamps, £28								
18s. 5d.; Miscellaneous, £65 5s. 4d.			184	0	9	J		
Band Expenses :- Music, £180 12s.; Programmes, £18 18s.			199	10	0	100	10	
dvertisements			138		-	199 138		
ibrary Expenses:—						100	-	
New Books	9	6 7				2		
New Books, £14 15s. 3d.; Binding, £55 8s. 6d.; Duty, £2 8s. 3d.; Large						1 0	10	
Coloured Drawing of the Gorilla,						91	18	
£10			82	12	0	J		
fuseum Expenses		15 0					15	
tationery	17		78		8	35 96		
ransactions:—	17	13 0	10	12		90	5	ľ
Binding	16	13 4				7		
Printing Plates and Paper, £41 0s. 6d.; Letterpress and Paper, £33 14s.;							1020	
Drawings, £9 17s. 6d.; Colouring						142	7	
Plates, £37 18s. 4d.; Binding, £3 4s.			125	14	4	J		
roceedings :-								
Printing Plates and Paper, £27 18s.; Letterpress and Paper, £148 11s. 9d.;			-					
Drawings, £12 1s. 6d.; Colouring,								
£4 18s. 9d.; Binding, £1 4s. 8d	194	14 8				1		
Printing Plates and Paper, £91 11s. 9d.;								
rinting riaces and raper, acgirio, goi,						-	10	
Colouring, £133 11s.; Drawings,			1			795	19	
Colouring, £133 11s.; Drawings, £103 9s. 6d.; Letterpress and Paper,								
Colouring, £133 11s.; Drawings, £103 9s. 6d.; Letterpress and Paper, £249 13s. 9d.; Binding, £14 6s. 11d.;			4000					
Colouring, £133 11s.; Drawings, £103 9s. 6d.; Letterpress and Paper, £249 13s. 9d.; Binding, £14 6s. 11d.; Making Index, £7 5s. 6d.; Sundries, £1 6s.			601	4	5	J		
Colouring, £133 11s.; Drawings, £103 9s. 6d.; Letterpress and Paper, £249 13s. 9d.; Binding, £14 6s. 11d.; Making Index, £7 5s. 6d.; Sundries, £1 6s			36	4	0	36		
Colouring, £133 11s.; Drawings, £103 9s. 6d.; Letterpress and Paper, £249 13s. 9d.; Binding, £14 6s. 11d.; Making Index, £7 5s. 6d.; Sundries, £1 6s.		•••••		4 1 0		36		

Expenditure incurred in 1859.

	Paid Ye	in thar.	he	Uni Dec.			То	tal.	
	£	s.	d.	£		d.	£	s.	d.
Rent, Rates, Taxes, &c	693	3	0	260	0	0	953	3	0
Salaries, Wages, Pensions, and	3,944	10	9				3,944	10	9
Gratuities S	617	11	9				617	11	9
Carriage of Animals and Keep-	349	9	11				349	9	11
ers' Expenses	2,501	2	7	185	1	3	2,686	3	10
Menagerie Expenses	- 1,159	0	6	158		9	1,317	9	3
Keepers' Dresses	101	16	5				101	16	5
New Buildings and Works	1,166	9	4	606	2	2	1,772	11	6
Other Works, Repairs, Mate-	867	7	5	45	2,	2	912	9	7
Garden Expenses	546	5	6	0	18	0	547	3	6
Band Expenses	199	10	0				199	10	0
Advertisements	138	14	0				138	14	0
House and Office Expenses	258	19	1	12	4	0	271	3	1
Library Expenses	82	12	0	33	3	0	115	15	0
Museum Expenses				1	11	0	1	11	0
Stationery	27	19	8	4	13	6	32	13	2
Printing (Miscellaneous)	78	12	4	50	10	8	129	3	0
Transactions	125	14	4	51	15	6	177	9	10
Proceedings	601	4	5	112	18	6	714	2	11
Returned Subscription	3	0	0				3	0	0
Cost of Medals	36	1	0				36	1	0
	13,499	4	0	1,522	8	6	15,021	12	6
Ordinary Expenditure	11,482	8	11	905	1	4	12,387	10	3
Extraordinary Expenditure				617	7	2	2,634		
	13,499	4	0	1,522	8	6	15,021	12	6

The Committee of Auditors congratulate the Society upon the continued improvement of the Finances, and upon the large addition to the number of Visitors to the Gardens. Their increased popularity as a place of instructive recreation is shown by the numbers which have resorted to them during the past year, being 12,776 more than in the year 1858. The total number of persons who visited the Gardens in 1859 was 364,356,—being an average of nearly 1000 entrances per day throughout the whole year.

The sum received for "Compositions" during the year has been nearly three times the amount of that received under the same head in the previous year, thereby showing in-

creased confidence in the stability of the Society.

The excess of the Liabilities over those of the previous years is mainly attributable to "Extraordinary Expenses,"—the large sum of £2634 2s. 3d. having been devoted for New Buildings, and Works incidental thereto; but notwithstanding these outlays, the Assets exceed the Liabilities by a larger

sum than has been the case for many years past.

The £500 additional Stock, purchased in January 1859, has raised the Reserve Fund of the Society to the satisfactory amount of £5000 Red. 3 per Cents. And the Committee beg to notice this important fact, that although the Liabilities on the 31st of December last amounted to £1522 8s. 6d., the Balance at the Bankers at the same time was £1784 4s. 9d., leaving a surplus of £261 16s. 3d.

Your Committee conclude their Report with expressing their perfect satisfaction at the clear and accurate manner in which the Accountant, Mr. Leigh, has laid the accounts

before them.

EDW. GREENAWAY.
G. SCLATER-BOOTH.
WILLIAM MARTYN.
EDWARD JOHNSTONE.
R. HENRY S. VYVYAN.
SAMUEL OXENHAM.
ALFRED NEWTON.