





REPORTS
OF THE
COUNCIL AND AUDITORS
OF THE
ZOOLOGICAL SOCIETY
OF LONDON,

READ AT THE ANNUAL GENERAL MEETING,

APRIL 29TH, 1859.

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1859.

REPORT OF THE COUNCIL.

IN accordance with the provisions of the Charter, the Council have now the pleasure of presenting to the Society their Thirtieth Annual Report.

I. GENERAL ESTABLISHMENT.

1. FELLOWS AND ANNUAL SUBSCRIBERS.

The number of Fellows, Fellows Elect, and Annual Subscribers at the present time amounts to 1717. Of these there are—

Compounders, paying £20	234
Ditto ditto £30	243
Paying annual contributions of £2	342
Ditto ditto £3	666
Dormant	145
Admission-fees unpaid	22
Ditto remitted	9
Annual Subscribers, paying £3	56
	<hr/>
	1717

Fifty-one Fellows have been elected since the last Anniversary, and four have been readmitted under the provisions of the By-Laws. Fourteen Annual Subscribers have also been elected during the same period.

The number of Deaths since the last Anniversary has been 54; and the number of Resignations has been 24.

The number of Candidates for admission is 12.

2. FINANCES.

a. Income.

The INCOME of 1858 amounted to £14,034 12s. 11*d.*, the whole of the permanent sources of revenue having remained steady at the average of the last nine years.

The state of the weather at Whitsuntide and Easter caused a comparative decrease in THE RECEIPTS AT THE GARDEN GATE in each of those weeks, but that decrease was subsequently reduced to £100 15s. 6*d.* on the total of the year.

In reviewing the annual results which have been obtained since 1850, the Council feel confident that this principal head of Income may be relied on as very nearly approaching £9000 a year, and that in the present condition of the Collection and Establishment, with such gradual improvements as they propose to continue, the Public will constantly afford their support to this extent at the least.

b. Expenditure.

The EXPENDITURE incurred in 1858 amounted to £12,039 11s. 9*d.*, and the Income having reached £14,034 12s. 11*d.*, there was an actual surplus of Income over Expenditure of £1995 1s. 2*d.*

Bearing in mind the Resolution which they had announced to the Society in previous Reports, the Council applied this surplus to the increase of the Investment Fund, by the purchase of £1500 Reduced 3 per Cent. Stock, raising the Reserve Fund to £4500 on the 31st of December last: and finding that the state of the Banker's balance in January of the current year, after paying off the whole of the existing liabilities, was sufficiently strong to warrant it, they have since purchased a further sum of £500 in the same Stock, and they have now therefore the pleasure to report that the Reserve has been raised to £5000 3 per Cent. Reduced, as was stated to be their intention at the last Anniversary.

The large expenditure of former years has placed the Establishment on such a footing, that the Council have been able to reduce the ordinary cost of maintenance within £12,500 per annum; and if the present scale is adhered to, the experience of 1857, when the expenditure incurred was

£12,342 3s. 7d., and of 1858, when it was only £12,039 11s. 9d., proves that this amount may be taken as the average for the future.

There being every probability that the Income will be kept up to an average of £14,500, the Council feel assured that they will now be enabled to add, from the surplus in each year, to the improvements of which the Establishment is still amply susceptible.

It appears to them that the financial position to which they have thus conducted the affairs of the Society is a perfectly sound one; and they trust that the wide-spread support which their labours continue to receive as regards the Living Collection, will tend to increase and consolidate the public sympathy, on which the vitality of the Revenue depends.

c. Assets and Liabilities.

The Cash Assets of the Society on the 31st of December 1858 amounted to—

	£	s.	d.
Cash at the Banker's	1420	16	3
Cost of £4500 Red. 3 per Cents	4078	7	4
	5499	3	7
The Liabilities at the same period were estimated at	850	0	0
Leaving a Cash Balance in favour of the Society of	4649	3	7

presenting an increase of £1908 0s. 11d. as compared with the same day of the preceding year.

II. PUBLICATIONS.

Since the last Anniversary three Parts of the Illustrated Proceedings for 1858 have been issued.

Part I., published on the 1st of May, contains ten Plates.

Part II., published on the 1st of September, contains ten Plates.

Part III., published in November, also contains ten Plates.

The above Plates, thirty in number, are executed by Wolf, Ford, and Sowerby, and are divided into the following series: viz. six Plates of Mammalia and twelve of Birds, drawn by Wolf; two Plates of Reptilia, three of Annulosa, and four of Radiata, by Ford; and three Plates of Mollusca, by G. B. Sowerby; the whole of which are executed with the skill and care for which each of these gentlemen are so well and deservedly celebrated.

Part IV., containing the termination of the Proceedings for the last year, is now on the table, and contains fifteen Plates.

The Illustrated Proceedings for 1858 will therefore contain the large number of forty-five Plates, thirty-four of which have been coloured with the greatest care from the original specimens, and nearly 600 pages of Letterpress. The price of the Volume to Fellows of the Society is £1 12s. 6d., and to the Public, £2 2s. 0d.

The Fifth Part of the Fourth Volume of the Transactions, which was announced at the last Anniversary as being in course of preparation, has accordingly since then been published. It contains four elaborate papers by Professor Owen on the following subjects:—

- 1st. "On *Dinornis* (Part VII.): containing a description of the bones of the leg and foot of *Dinornis elephantopus*, Owen."
- 2nd. "On *Dinornis* (Part VIII.): containing a description of the skeleton of the *Dinornis elephantopus*, Owen."
- 3rd. "Osteological Contributions to the Natural History of the Chimpanzees (*Troglodytes*) and Orangs (*Pithecus*). No. VI. Characters of the Skull of the male *Pithecus morio*, with remarks on the varieties of the male *Pithecus satyrus*."
- 4th. "On the Anatomy of the Great Anteater (*Myrmecophaga jubata*, Linn.), Part II."

These papers are illustrated by eleven Plates of great excellence, executed by Dinkel, Erxleben, and Ford, in the first style of lithographic art.

The Council beg here to record their thanks to the Gentlemen composing the Committee of Publication for

the attention which they have bestowed on the production of the Journal of the Society, and in the general business of the Scientific Meetings. The whole number of Papers which have been read before the Society, and are printed either *in extenso* or in abstract in the twenty-eight volumes of the "Proceedings," now amounts to 1606; and the last eleven volumes are illustrated by 347 Plates, representing a series of new species which no other journal has exceeded.

III. LIBRARY.

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 University College, London.
- The Entomological Society of London.
- The Royal Society of Literature.
- The Literary and Philosophical Society of Liverpool.
- The Portsmouth and Portsea Literary and Philosophical Society.
- The Literary and Philosophical Society of Manchester.
- The Berwickshire Naturalists' Club.
- The Tyneside Naturalists' Field Club.
- The Royal Society of Edinburgh.
- The Academy of Natural Sciences of Philadelphia.
- The Natural History Society of Paris.
- The Academy of Sciences of Paris.
- 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 Imperial Academy of Naturalists of Breslau.
- The Royal Academy of Sciences of Amsterdam.
- The Royal Academy of Sciences of Göttingen.
- The Royal Academy of Sciences of Stockholm.
- The Royal Academy of Sciences of Munich.
- The Imperial Academy of Copenhagen.
- The Society of Natural Sciences of Zurich.
- The Senckenbergian Society.

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 Institution of Great Britain.
- The Photographic Society of London.
- The Art-Union of London.
- The Statistical Society of London.
- The United Service Institution.
- The Literary and Philosophical Society of Manchester.
- The Royal Institution of Cornwall.
- The Leeds Philosophical and Literary Society.
- The Bristol Zoological Society.
- The Geological and Polytechnic Society of the West Riding of Yorkshire.
- The Royal Dublin Society.
- The Geological Society of Dublin.
- The Imperial Academy of Sciences of St. Petersburg.
- The Imperial Society of Naturalists of Moscow.
- The Royal Academy of Sciences of Turin.
- 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 Imperial Academy of Sciences and Arts of Lyons.
- The Royal University of Christiania.
- The Asiatic Society of Bengal.
- The Franklin Institute.

Donations have also been received from the Hon. East India Company; The Secretary of State for India; P. Kernan, Esq., F.Z.S. (deceased); E. Newman, Esq., F.Z.S.; Jacob Bell, Esq., F.Z.S.; Professor F. S. Holmes; Isaac Lea, Esq., LL.D., Corr. Mem.; James MacAdam, Esq.; M. Ad. Quetelet; Joseph Leidy, Esq., M.D., Corr. Mem.; Professor A. Duméril, For. Mem.; Professor Jan; Sig. I. I. Bianconi; the Editor of the Athenæum

Journal; the Editor of the Zoologist; the Editor of the Literary Gazette; the Editors of the 'Atlantis'; and the Editor of the Agricultural Magazine.

IV. GARDEN ESTABLISHMENT.

a. WORKS.

1. The Council having strictly adhered to the practice of the previous year, have limited the works in 1858 to those only which were absolutely necessary to prevent deterioration in the Society's property, and to such minor improvements as were of the most obvious and pressing advantage.

The state of the Garden bears evidence of the effect which has been produced; and the new Walk from the South Entrance towards the Reservoir, which has been opened since the end of last year, affords great facility for the circulation of visitors.

b. MENAGERIE.

To give a detailed account of a collection which exceeds 1300 individual specimens of more than 600 species of vertebrate animals, is obviously beyond the limits of this Report; but the Council are desirous of placing in the hands of the Society some record of the state to which they have advanced at this period.

The principal divisions of the collection are—

1. Invertebrates.
2. Fishes.
3. Reptiles.
4. Birds.
5. Mammals.

I. INVERTEBRATES.

The attention of the Council having been earnestly directed to the probable success with which Marine Zoology might be illustrated in a building specially appropriated for that purpose, an Aquarium was constructed in 1852, and opened to the public in the year 1854.

The extreme beauty of the animals exhibited in it, the novelty of the subject, which up to that time had been

cultivated but by few students, gave an impulse to the popular study of the inhabitants of river and sea which has extended throughout the country, and has attracted considerable attention on the Continent. A very large number of British species have been exposed in the tanks; many have bred; many have gone through their stated transformations, and have been observed in all periods of their growth.

The following list presents the average number of species of which the collection is composed:—

1. ZOOPHYTA.

- | | |
|--------------------------|-------------------------|
| 1. Clava multicornis. | 4. Hydra tuba. |
| 2. Hydractinia echinata. | 5. Flustra —? —. |
| 3. Coryne sessilis. | 6. Bowerbankia imbrica. |

2. ACTINOIDEA.

- | | |
|------------------------------|------------------------------|
| 1. Actinia mesembryanthemum. | 11. Stomphia churchiæ. |
| 2. ——— parasitica. | 12. Peachia hastata. |
| 3. ——— miniata. | 13. Adamsia palliata. |
| 4. ——— dianthus. | 14. Cerianthus membranaceus. |
| 5. ——— nivea. | 15. Anthea cereus. |
| 6. ——— anguicoma. | 16. ——— couchii. |
| 7. ——— bellis. | 17. Corynactis allmanni. |
| 8. ——— clavata. | 18. Caryophylla smithii. |
| 9. ——— coronata. | 19. Zoanthus couchii. |
| 10. Bunodes gemmacea. | |

3. ACALEPHÆ.

- | | |
|-------------------|----------------------|
| 1. Medusa aurita. | 2. Sarsia prolifera. |
|-------------------|----------------------|

4. ECHINODERMATA.

- | | |
|-------------------------|------------------------|
| 1. Asterina gibbosa. | 4. Echinus sphæra. |
| 2. Pentaacta pentactes. | 5. Priapulid caudatus. |
| 3. Ocnus brunneus. | |

5. ANNELIDES.

- | | |
|-----------------------------|------------------------|
| 1. Serpula contortuplicata. | 5. Sabella veniformis. |
| 2. ——— triquetra. | 6. ——— vesiculosa. |
| 3. Sabella voluticornis. | 7. Terebella ———? |
| 4. ——— tubularia. | |

6. MOLLUSCA.

- | | |
|----------------------------|---------------------------|
| 1. Ascidia mentula. | 8. Murex erinaceus. |
| 2. Clavelina lepadiformis. | 9. Littorina littorea. |
| 3. Botrylus ———? | 10. Purpura lapillus. |
| 4. Patella vulgaris. | 11. Nassa reticulata. |
| 5. Ostrea edulis. | 12. Haliotis tuberculata. |
| 6. Pecten varius. | 13. Doris tuberculata. |
| 7. Anomia ———? | 14. Eolis coronata. |

II. FISHES.

The species of Fishes now exhibited in the tanks are—

- | | |
|------------------------|-----------------------------|
| 1. Conger vulgaris. | 13. Barbus vulgaris. |
| 2. Platessa flesus. | 14. Cyprinus carpio. |
| 3. Motella vulgaris. | 15. — auratus. |
| 4. Salmo fario. | 16. — gibelio. |
| 5. Esox lucius. | 17. Crenilabrus cornubicus. |
| 6. Cobitis barbatula. | 18. Zoarcus viviparus. |
| 7. Leuciscus phoxinus. | 19. Blennius gallerita. |
| 8. — vulgaris. | 20. Mugil capito. |
| 9. — rutilus. | 21. Gasterosteus leiurus. |
| 10. Abramis brama. | 22. — trachurus. |
| 11. Tinca vulgaris. | 23. Perca fluviatilis. |
| 12. Gobio fluviatilis. | |

III. REPTILES.

Up to the year 1848, the only attempt which had been made to familiarize the visitors with the structure and habits of the class REPTILIA was by the occasional display of a pair of Pythons, which were kept closely covered in a box of limited dimensions in one of the smaller provisional houses for Carnivora in the North Garden.

In 1849 the Council opened a building of considerable dimensions for the exhibition of Reptiles, on a plan entirely novel in this country, and the interest with which it was received by visitors very soon induced them to extend the glass cases to double their length, and finally to construct a second house for the great Pythons, which require a much more ample area for their display.

The series now includes—

BATRACHIA.

- | | |
|--------------------------|------------------------|
| 1. Proteus anguinus. | 9. Hyla cyanea. |
| 2. Amphiuma tridactylum. | 10. Bufo viridis. |
| 3. Salamandra maculosa. | 11. — calamita. |
| 4. — nigra. | 12. — pantherinus. |
| 5. Triton cristatus. | 13. Bombinator igneus. |
| 6. — punctatus. | 14. Rana esculenta. |
| 7. Amblystoma luridum. | 15. — mugiens. |
| 8. Hyla viridis. | |

REPTILIA.

1. OPHIDIA.

- | | |
|-----------------------|-------------------------|
| a. <i>Viperidæ</i> . | 3. Naia haje. |
| 1. Crotalus durissus. | 4. — tripudians. |
| 2. Clotho arietans. | 5. Cenchris piscivorus. |

b. *Colubridæ*.

6. *Zamenis hippocrepis*.
7. *Coluber guttatus*.
8. — *quadrivittatus*.
9. — *blumenbachii*.
10. *Tropidonotus natrix*.
11. — *fasciatus*.
12. — *viperinus*.
13. *Abastor erythrogrammus*.

c. *Boidæ*.

14. *Python sebæ*.
15. — *regius*.
16. — *molurus*.
17. — *reticulatus*.
18. *Boa constrictor*.
19. *Chilobothrus inornatus*.
20. *Corallus hortulanus*.

2. SAURIA.

- | | |
|-----------------------------------|--------------------------------------|
| 1. <i>Anguis fragilis</i> . | 6. <i>Lacerta viridis</i> . |
| 2. <i>Pseudopus pallasii</i> . | 7. — <i>ocellata</i> . |
| 3. <i>Scincus marinus</i> . | 8. <i>Ascalobotes mauritanicus</i> . |
| 4. <i>Trogonophis wiegmanni</i> . | 9. <i>Grammatophora barbata</i> . |
| 5. <i>Clothonia johnii</i> . | 10. <i>Cyclodus gigas</i> . |

3. CROCODILIA.

1. *Alligator mississippiensis*.

4. CHELONIA.

- | | |
|---------------------------------|---------------------------------------|
| 1. <i>Chelydra serpentina</i> . | 5. <i>Emys guttata</i> . |
| 2. <i>Testudo græca</i> . | 6. — <i>rubriventris</i> . |
| 3. <i>Emys mobiliensis</i> . | 7. — <i>decussata</i> . |
| 4. — <i>picta</i> . | 8. <i>Malacoclemmys concentrica</i> . |

IV. BIRDS.

1. The collection of NATATORIAL BIRDS, although much restricted by the extent of water, contains many interesting species, of which the MANDARIN DUCK, the SANDWICH ISLAND GOOSE, the RUDDY SHIELDRAKE, the ASHY-HEADED GOOSE, the MAGELLANIC GOOSE, and the BLACK-NECKED SWAN have bred for the first time, and have been acclimatized in the establishment.

Others are of extreme rarity, and exist in no other Vivarium; as, for instance, the RED-BREASTED GOOSE, the AUSTRALIAN SWAN-GOOSE, and the UPLAND GOOSE.

The present number of species possessed by the Society is as follows:—

NATATOIRES.

- | | |
|--------------------------------------|--------------------------------------|
| 1. <i>Phœnicopterus antiquorum</i> . | 10. <i>Bernicla brenta</i> . |
| 2. <i>Anseranas melanoleucus</i> . | 11. — <i>canadensis</i> . |
| 3. <i>Plectropterus gambensis</i> . | 12. — <i>magellanica</i> . |
| 4. — <i>ruppellii</i> . | 13. <i>Chloephaga poliocephala</i> . |
| 5. <i>Chenalopex ægyptiacus</i> . | 14. — <i>ruficollis</i> . |
| 6. <i>Cereopsis novæ hollandiæ</i> . | 15. — <i>sandvicensis</i> . |
| 7. <i>Anser ferus</i> . | 16. <i>Cygnus nigricollis</i> . |
| 8. — <i>indicus</i> . | 17. — <i>atratus</i> . |
| 9. — <i>minutus</i> . | 18. <i>Dendrocygna arcuata</i> . |

- | | |
|-------------------------------------|------------------------------------|
| 19. <i>Dendocygna autumnalis</i> . | 36. <i>Cairina moschata</i> . |
| 20. <i>Tadorna vulpanser</i> . | 37. <i>Fuligula cristata</i> . |
| 21. <i>Casarca rutila</i> : | 38. — <i>marila</i> . |
| 22. — <i>cana</i> . | 39. — <i>ferina</i> . |
| 23. <i>Aix sponsa</i> . | 40. <i>Nyroca leucophthalma</i> . |
| 24. — <i>galericulata</i> . | 41. — <i>brunnea</i> . |
| 25. <i>Mareca penelope</i> . | 42. <i>Clangula glaucion</i> . |
| 26. <i>Dafila acuta</i> . | 43. <i>Lestris catarractes</i> . |
| 27. <i>Pœcilonetta bahamensis</i> . | 44. <i>Larus marinus</i> . |
| 28. — <i>erythrorhyncha</i> . | 45. — <i>argentatus</i> . |
| 29. <i>Anas boschas</i> . | 46. — <i>fuscus</i> . |
| 30. — <i>obscura</i> . | 47. — <i>ridibundus</i> . |
| 31. — <i>flavirostris</i> . | 48. <i>Graculus carbo</i> . |
| 32. <i>Querquedula crecca</i> . | 49. <i>Pelecanus onocrotalus</i> . |
| 33. — <i>circia</i> . | 50. — <i>crispus</i> . |
| 34. <i>Chaulelasmus streperus</i> . | 51. — <i>fuscus</i> . |
| 35. <i>Spatula clypeata</i> . | |

2. The GRALLATORIAL BIRDS compose a series of the highest interest, and, although the CARUNCULATED CRANE, the JABIRU, the AUSTRALIAN JABIRU, and a few other brilliant species have for the present to be replaced, the majority of accessible forms are well represented.

Of these the rarest and most remarkable are the WEKA RAIL, from New Zealand; the AUSTRALIAN PORPHYRIOS; the MONTIGNY'S CRANES, from Northern China; the TIGER BITTERN, from Central America; the SACRED IBIS, from the Nile; and the CRESTED COOT, from North Africa.

GRALLATORES.

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|-----------------------------------|------------------------------------|
| 1. <i>Fulica atra</i> . | 20. <i>Geronticus æthiopicus</i> . |
| 2. — <i>cristata</i> . | 21. <i>Ibis rubra</i> . |
| 3. <i>Gallinula chloropus</i> . | 22. <i>Leptoptilus argala</i> . |
| 4. <i>Porphyrio melanotus</i> . | 23. — <i>crumeniferus</i> . |
| 5. — <i>smaragnotis</i> . | 24. <i>Ciconia alba</i> . |
| 6. — <i>phœnicurus</i> . | 25. — <i>maguari</i> . |
| 7. <i>Ocydromus australis</i> . | 26. — <i>nigra</i> . |
| 8. <i>Rallus australis</i> . | 27. <i>Tigrisoma tigrinum</i> . |
| 9. <i>Ortygometra crex</i> . | 28. <i>Ardea cinerea</i> . |
| 10. <i>Tringa canutus</i> . | 29. <i>Buphus bubulcus</i> . |
| 11. <i>Calidris arenaria</i> . | 30. <i>Balearica pavonina</i> . |
| 12. <i>Limosa ægocephala</i> . | 31. — <i>regulorum</i> . |
| 13. <i>Numenius phæopus</i> . | 32. <i>Anthropoides virgo</i> . |
| 14. — <i>arquata</i> . | 33. — <i>paradiseus</i> . |
| 15. <i>Strepsilas interpres</i> . | 34. <i>Grus cinerea</i> . |
| 16. <i>Hæmatopus ostralegus</i> . | 35. — <i>australasiana</i> . |
| 17. <i>Charadrius pluvialis</i> . | 36. — <i>antigone</i> . |
| 18. <i>Vanellus cristatus</i> . | 37. — <i>montignesia</i> . |
| 19. <i>Hoplopterus spinosus</i> . | 38. <i>Cariama cristata</i> . |

3. In STRUTHIOUS BIRDS the collection of the Zoological Society is altogether unrivalled.

The African Ostrich, the Emeu, the Cassowary, and the Rhea have generally been represented in sufficient number; but within the last year a specimen of the second species of Rhea (*Rhea darwinii*) has been obtained; and Dr. Bennett of Sydney has sent as a gift the first individual which has ever been seen of a perfectly distinct species of Cassowary, indigenous to New Britain, which has been described in the Proceedings by Mr. Gould, and named *C. bennettii*, in honour of the donor.

We are thus in possession of the whole of the known existing species of this important family, and have for several years possessed an unique specimen of the *Apteryx mantellii*, which perfectly represents that singular New Zealand genus, the contemporary of the extinct Moas, and the newly-found *Notornis*, of which possibly living examples may one day reach us to bear it company.

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|------------------------------------|-------------------------------|
| 1. <i>Struthio camelus</i> . | 5. <i>Rhea americana</i> . |
| 2. <i>Dromæus novæ hollandiæ</i> . | 6. ——— <i>darwinii</i> . |
| 3. <i>Casuarius galeatus</i> . | 7. <i>Apteryx mantellii</i> . |
| 4. ——— <i>bennettii</i> . | |

4. In the BUSTARDS, the intermediate link between the Ostriches and the Rasorial or Game Birds, we have, within a very recent period, possessed the three European species, the INDIAN HOUBARA, and the very beautiful BENGAL BUSTARD (*Eupodotis bengalensis*), of which two fine males still adorn the collection.

5. The RASORIAL or GAME BIRDS have always been objects of attention, from their beauty, from their aptitude to domestication, and from their value as an article of food. Although one of the primary objects of the Society was the introduction of exotic species of this group in particular, serious efforts towards that end had been from various causes postponed until the year 1856, when formal application was made to the Governor-general of India for his assistance in obtaining a sufficient number of the brilliant *Gallinaceæ* of the Himalaya, for the purpose of testing fairly the probabilities of success in finally acclimatizing these most desirable species in Europe.

The extremely liberal manner in which Viscount Canning and the officers to whom he confided the Society's interest gave their assistance, secured a very large collec-

tion of birds of the genera *Lophophorus*, *Tetraogallus*, *Pucrasia*, *Catreus*, *Cerionis*, and *Gallophasis*.

The outbreak of the Indian mutiny interrupted the progress of an experiment which had been organized for rearing a second collection of these birds in the country in the year 1858, which would almost certainly have obviated all the difficulties encountered in the first attempt of 1857.

The results which were obtained last year from the Cheer, three species of Kaleege, and the Impeyan Pheasants in the Society's Garden, give the most complete confidence as to what would have been the success of such an undertaking. The Birds so reared in their native hills would, without doubt, bear the confinement of the voyage, which proved fatal to so many of the Wild Birds collected in 1857, with comparative impunity.

The importance of the additions which may thus be effected to the acclimatized Game Birds of Great Britain has been amply proved by the test to which the young Cheers and Kaleeges reared in the Society's Gardens have been subjected during the last winter by the Viscount Hill at Hawkstone, and by other noblemen and gentlemen in other parts of the country. The Birds at Hawkstone have had no artificial shelter whatever, and their only protection has been the evergreens which are growing in an inclosure of about two acres in extent.

The Impeyan Pheasants have hitherto presented greater difficulties, but by care and attention a sufficient stock has been got up, with the addition of Birds deposited in the care of the Society by Her Majesty the Queen, and by Mr. Clarke of Swakeleys, to give good ground for expecting complete success in the present season. This magnificent species is well calculated, from its habits and strong constitution, to live even in the coldest parts of the British Islands; and the four species of Snow Partridge, *Tetraogallus caucasicus*, *himalayanus*, *altaicus*, and *tibetanus*, which are equal to the Impeyan in size, are equally certain to flourish under similar conditions, when the Society shall have been able to import them.

The single representative of the MEGAPODIDÆ now contained in the collection, is one of the most desirable contributions of Australia, the *Talegalla*, or Brush Turkey. In 1853, the weather and other circumstances being favourable, the mound which the Birds annually construct

Series Neogeana.

Subfam. *e.* Arinæ.

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|---|--|
| 54. <i>Ara ararauna</i> . Brazil. | 60. <i>Conurus solstitialis</i> . Brazil. |
| 55. — <i>macao</i> . Ditto. | 61. — <i>carolinensis</i> . North America. |
| 56. <i>Conurus erythrognys</i> . Guayaquil. | 62. <i>Brotogerys pyrropterus</i> . South America. |
| 57. — <i>guianensis</i> . Guiana. | 63. <i>Psittovius tovi</i> . Ditto. |
| 58. — <i>aureus</i> . Brazil. | |
| 59. — <i>æruginosus</i> . Ditto. | |

Subfam. *f.* Psittaculinæ.

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| 64. <i>Chrysotis pulverulenta</i> . Brazil. | 71. <i>Chrysotis ochrocephala</i> . Brazil. |
| 65. — <i>auripalliata</i> . Central America. | 72. <i>Deropterus accipitrinus</i> . Amazons. |
| 66. — <i>xanthops</i> . Brazil. | 73. <i>Pionus senilis</i> . S. Mexico. |
| 67. — <i>leucocephala</i> . Cuba. | 74. — <i>purpureus</i> . South America. |
| 68. — <i>sallæi</i> (type). Saint Domingo. | 75. <i>Caica melanocephala</i> . Amazons. |
| 69. — <i>vittata</i> . Porto Rico. | 76. <i>Psittacula passerina</i> . Guiana. |
| 70. <i>Chrysotis festiva</i> . Amazons. | |

Fam. PICIDÆ.

77. *Picus major*. Europe.

Fam. MUSOPHAGIDÆ.

78. *Musophaga violacea*. Western Africa.
79. *Corythaix buffoni*. Western Africa.

8. The PERCHING BIRDS are so very numerous, both in genera and species, that, until the extension of the Aviaries affords sufficient space for their accommodation, this division of the collection necessarily remains very imperfect.

The following species only exist at the present time:—

1. DENTIROSTRES.

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|----------------------------|---------------------------------|
| 1. <i>Turdus iliacus</i> . | 8. <i>Turdus pæcilopterus</i> . |
| 2. — <i>pilaris</i> . | 9. <i>Monticola cyanea</i> . |
| 3. — <i>merula</i> . | 10. <i>Luscinia philomela</i> . |
| 4. — <i>musicus</i> . | 11. <i>Anthus pratensis</i> . |
| 5. — <i>migratorius</i> . | 12. <i>Oriolus galbula</i> . |
| 6. — <i>viscivorus</i> . | 13. <i>Otocorys alpestris</i> . |
| 7. — <i>torquatus</i> . | 14. <i>Alauda arvensis</i> . |

2. CONIROSTRES.

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|--------------------------------------|---|
| 15. <i>Emberiza miliaria</i> . | 34. <i>Hyphantornis textor</i> . |
| 16. — <i>citrinella</i> . | 35. <i>Estrela amandava</i> . |
| 17. <i>Fringillaria striolata</i> . | 36. — <i>temporalis</i> . |
| 18. <i>Crithagra brasiliensis</i> . | 37. <i>Vidua macroura</i> . |
| 19. <i>Phrygilus diuca</i> . | 38. — <i>paradisea</i> . |
| 20. <i>Volatinia jacarina</i> . | 39. <i>Ptilorhynchus holosericeus</i> . |
| 21. <i>Linota borealis</i> . | 40. <i>Pastor roseus</i> . |
| 22. <i>Fringilla cælebs</i> . | 41. <i>Sturnus vulgaris</i> . |
| 23. — <i>montifringilla</i> . | 42. <i>Gracula intermedia</i> . |
| 24. <i>Passer simplex</i> . | 43. <i>Lamprocolius chalybæus</i> . |
| 25. <i>Coccothraustes vulgaris</i> . | 44. — <i>auratus</i> . |
| 26. <i>Chlorospiza chloris</i> . | 45. <i>Dolichonyx oryzivorus</i> . |
| 27. <i>Paroaria cucullata</i> . | 46. <i>Agelæus aterrimus</i> . |
| 28. <i>Cardinalus virginianus</i> . | 47. <i>Corvus corax</i> . |
| 29. <i>Loxia curvirostra</i> . | 48. <i>Cyanocorax cristatus</i> . |
| 30. <i>Amadina oryzivora</i> . | 49. — <i>cyanopogon</i> . |
| 31. — <i>fasciata</i> . | 50. <i>Fregilus graculus</i> . |
| 32. — <i>lathamii</i> . | 51. <i>Pica melanoleuca</i> . |
| 33. <i>Ploceus oryx</i> . | 52. <i>Gymnorhina tibicen</i> . |

3. FISSIROSTRES.

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|---------------------------|-------------------------------|
| 53. <i>Dacelo gigas</i> . | 55. <i>Podargus cuvieri</i> . |
| 54. <i>Buceros pica</i> . | |

9. The RAPTORIAL BIRDS present an unusually fine series, containing many rare and interesting types, approached only in variety by the valuable collection belonging to the Zoological Society of Antwerp.

STRIGIDÆ.

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|---------------------------|------------------------------|
| 1. <i>Strix flammea</i> . | 6. <i>Bubo virginianus</i> . |
| 2. — <i>personata</i> . | 7. — <i>bengalensis</i> . |
| 3. <i>Syrnium aluco</i> . | 8. — <i>maximus</i> . |
| 4. <i>Athene noctua</i> . | 9. — <i>crassirostris</i> . |
| 5. <i>Nyctea nivea</i> . | |

FALCONIDÆ.

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| 10. <i>Serpentarius reptilivorus</i> . | 24. <i>Haliaëtus leucocephalus</i> . |
| 11. <i>Milvus regalis</i> . | 25. <i>Thrasaëtus harpyia</i> . |
| 12. — <i>govinda</i> . | 26. <i>Spizaëtus ornatus</i> . |
| 13. <i>Tinnunculus alaudarius</i> . | 27. <i>Aquila imperialis</i> . |
| 14. — <i>sparverius</i> . | 28. — <i>chrysaëtus</i> . |
| 15. <i>Hypotriorchis rufularis</i> . | 29. — <i>canadensis</i> . |
| 16. <i>Falco peregrinus</i> . | 30. — <i>vulturina</i> . |
| 17. — <i>anatum</i> . | 31. — <i>audax</i> . |
| 18. — <i>islandicus</i> . | 32. — <i>bonellii</i> . |
| 19. — <i>grœnlandicus</i> . | 33. <i>Buteo jackal</i> . |
| 20. <i>Haliastur indus</i> . | 34. — <i>vulgaris</i> . |
| 21. <i>Helotarsus ecaudatus</i> . | 35. <i>Polyborus brasiliensis</i> . |
| 22. <i>Geranoaëtus aguia</i> . | 36. <i>Milvago chimango</i> . |
| 23. <i>Haliaëtus albicilla</i> . | 37. — <i>leucurus</i> . |

VULTURIDÆ.

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|----------------------------------|------------------------------------|
| 38. <i>Gyps fulvus</i> . | 41. <i>Gypaëtus barbatus</i> . |
| 39. <i>Otogyps auricularis</i> . | 42. <i>Gyparchus papa</i> . |
| 40. <i>Vultur monachus</i> . | 43. <i>Sarcorhamphus gryphus</i> . |

V. MAMMALS.

MONOTREMATA.

1. The lowest in organization among the Mammalia are the MONOTREMATA, which have frequently been represented in the collection by the *Echidna*, and of which, through Dr. Bennett of Sydney, there is now a prospect of the Society's possessing the only other form, namely, the Australian *Ornithorhynchus*.

2. The MARSUPIALIA have always occupied the attention of the Society, although the nature of the soil in the Regent's Park is extremely unfavourable to the Kangaroos which inhabit the dry plains and mountains of Australia. The rarest form of this class which appears in the Catalogue is undoubtedly the Thylacine, of which three living specimens only have reached Europe. The great Red Kangaroo (*Osphranter rufus*) is also unique in the Society's collection.

The species are as follows :—

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|---------------------------------|--------------------------------------|
| 1. <i>Phascolomys ursinus</i> . | 7. <i>Halmaturus ruficollis</i> . |
| 2. <i>Macropus major</i> . | 8. <i>Hypsiprymnus murinus</i> . |
| 3. ——— <i>melanops</i> . | 9. <i>Bettongia cuniculus</i> . |
| 4. <i>Osphranter rufus</i> . | 10. <i>Phalangista vulpina</i> . |
| 5. <i>Halmaturus bennetti</i> . | 11. <i>Thylacinus cynocephalus</i> . |
| 6. ——— <i>thetidis</i> . | |

3. The RODENTIA, including the Rats, Mice, and many other small forms, are so numerous an Order, that the known species actually amount in number to one-third of the whole Mammalian Class.

It is therefore neither desirable nor possible that any representation of the variations of form in so immense a group beyond that of the most striking and important genera should be attempted.

The BEAVERS, the CAVIES, and PORCUPINES, the HARES, and the SQUIRRELS, appear to be a sufficient limit, and of these the Society counts on an average about the following number of species :—

RODENTIA.

Muridæ.

1. *Mus decumanus*, var.
2. — *rattus*.
3. *Castor canadensis*.
4. *Myopotamus coypus*.
5. *Plagiodonta œdium*.

Hystriidæ.

6. *Hystrix cristata*.
7. — *leucura*.
8. *Dasyprocta aurea*.
9. *Cœlogenys paca*.
10. *Cavia aperea*.

Leporidaæ.

11. *Lepus timidus*.
12. — *nigripes*.
13. — *variabilis*.
14. — *hibernicus*.

Sciuridæ.

15. *Chinchilla lanigera*.
16. *Sciuropterus volucella*.
17. *Sciurus bicolor*.
18. — *palmarum*.
19. — *capistratus*.
20. — *cinereus*.
21. *Arctomys marmotta*.

4. The INSECTIVORA are not only a more limited Order in point of numerical variety of species, but extremely impatient of confinement. Their representation in the collection has consequently been always among the feeblest parts of it.

5. The CHEIROPTERA have not been entirely neglected, although their nocturnal habits and the nature of their food render their conservation extremely difficult. The examples of the frugivorous *Pteropus*, better known by its vernacular name of "Flying Fox," will be remembered by every one.

6. Of the EDENTULOUS BRUTA, the Society, in addition to the Great Anteater, in the course of the last year obtained their first living specimen of *Cyclothurus*, a most remarkable little animal, for which they were indebted to the care and liberality of Mr. Webb, who observed its habits in the forests of Brazil, and brought it with him on his return from that country.

The DASYPODIDÆ, or Armadillos, have been always represented in the collection in sufficient number, and not unfrequently by some of the rarest species.

The BRADYPODIDÆ, or Sloths, are so similar in their habits, and the external characters of the species present so few tangible distinctions, that the fine example of *Bradypus didactylus*, which has now lived for so many years in the Society's possession, affords a perfect illustration of this singular family, peculiar to South America, and of especial interest, on account of its affinity to some of the most surprising members of the Palæozoic Fauna of that continent.

BRUTA.

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|----------------------|-------------------------|
| 1. Dasypus villosus. | 3. Bradypus didactylus. |
| 2. — sexcinctus. | |

7. The MUTILATA, which include the WHALES, DOLPHINS, and DUGONGS, whose immense size and marine habits have hitherto exceeded any means of conservation which the zoological establishments of Europe afford, compose the only great division of Mammalia which is altogether absent from the collection. The difficulties which nature has interposed sufficiently account for the vacuum which, up to the present time, has thus unavoidably occurred in the series.

8. The extant PROBOSCIDEA are limited to three species of Elephants, of which *Elephas indicus* has never been absent from the collection. The young female which now represents this Order came into the possession of the Society in 1851, at the age of six months, and was the first instance of a calf of so tender an age having survived the voyage from India. The process of lactation was continued for many months; and, although not actually born in the establishment, the exhibition of this specimen afforded every means of studying the habits of Elephantine infancy in the most satisfactory and interesting manner.

9. In the PERISSODACTYLES, both the multungular and solidungular divisions are copiously illustrated.

The Indian Rhinoceros, and the beautiful Tapirs presented by His Majesty the King of Portugal, are types of the multungular; and the solidungular include the ZEBRA, the QUAGGA, the HEMIONE, the HEMIPPE, and the GOUR. The Hemippe is the first example of the wild ass of Assyria which has reached this country. The Society are indebted for this interesting animal to the liberality of the late Mr. Burckhardt Barker. It has only of late years been discriminated as a species by M. Isidore Geoffroy St.-Hilaire from specimens living in the Jardin des Plantes at Paris, and is on that account of peculiar interest to scientific zoologists. Being thus rich in the animals of this genus, the accession of another member of it, if indeed distinct, from the interior of Persia, whence the museums of Europe have never yet received specimens, ought not to be passed over in this Report.

The Hon. C. A. Murray, who has, from the time he long

since gave his services in the Council, ever evinced the most active and zealous interest in the prosperity and progress of the Society, on his recent return from Persia caused a living female of the Gour to be brought down to Trebizond, and thence shipped for the establishment in the Regent's Park, where it is now recovering from the fatigues of its long and tedious journey.

The liberality of Sir George Grey, the Governor of the Cape of Good Hope, has, together with many other gifts of great importance, added a male Quagga to this portion of the collection; and the Council have received assurances from his Excellency that the valuable series of South African animals which he has already transmitted for the acceptance of the Society will be followed by the remainder of his collection.

PERISSODACTYLA.

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| 1. Rhinoceros indicus. | 4. Equus quagga. |
| 2. Tapirus americanus. | 5. — hemionus. |
| 3. Equus burchelli. | 6. — hemippus. |

The ARTIODACTYLA contain two sub-families,—the *Suina* or Hogs, and the *Hippopotamina*, constituting the OMNIVORA of Professor Owen; and the extensive group of RUMINANTIA, formerly held to be a distinct order.

The *Suina* include about fourteen known species, of which the three most remarkable after the *Babirussa*, formerly presented by Capt. Sir E. Belcher, R.N., C.B., are undoubtedly the *Phacochoere*, the *Potamochoere*, and the *Bosch Vark*, all of which are now living in the menagerie. The *Potamochoere* is so rare, that, until the importation of the male belonging to the Society, the museum at Basle contained the only known skin of this singular inhabitant of West Africa. A female having been obtained by the good offices of the Directors of the Museum of Natural History in Paris, three successive litters of this curious Hog have been produced in the Gardens; and, as the last have escaped the destruction inflicted by the mother on her first offspring, it is now probable that their reproduction will go on steadily.

The history of the Hippopotamus is too fresh in the memory of the Society to require any extended notice in this Report, further than that the Council have good cause to congratulate themselves that they did not permit the

ARTIODACTYLA.

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| <p>a. <i>Omnivora.</i></p> <ol style="list-style-type: none"> 1. Hippopotamus amphibius. 2. Sus scrofa. 3. Potamochoerus africanus. 4. — penicillatus. 5. Phacochoerus æthiopicus. 6. Dicotyles tajacu. <p>b. <i>Ruminantia.</i></p> <ol style="list-style-type: none"> 7. Bos taurus, var. 8. Catoblepas taurina. 9. Portax picta. 10. Boselaphus oreas. 11. Oryx leucoryx. 12. Addax nasomaculata. 13. Kobus sing-sing. 14. Adenota kob. 15. — lechee. 16. Gazella euchore. 17. — cuvieri. 18. — subgutturosa. 19. — dorcas. 20. Tragops bennettii. 21. Cephalophorus grimmia. 22. — burchellii. | <ol style="list-style-type: none"> 23. Cephalophorus maxwellii. 24. — monticola. 25. Pelea capreolus. 26. Tragelaphus sylvaticus. 27. — scriptus. 28. Capra jemlaica. 29. — falconeri. 30. Ovis tragelaphus. 31. — vignii. 32. — musimon. 33. Camelopardalis giraffa. 34. Camelus bactrianus. 35. — dromedarius. 36. Lama pacos. 37. — peruana. 38. — huanacus. 39. Cariacus mexicanus. 40. Blastocerus campestris. 41. Cervus canadensis. 42. — duvaucellii. 43. — axis. 44. — hippelaphus. 45. — rusa. 46. — wallichii. 47. Hyelaphus porcinus. 48. Alces machlis. |
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The CARNIVORA are represented in all their principal divisions: the PINNIGRADES by the *Seal*; the PLANTI-GRADES by the *Bears*, *Racoons*, and other species; and the DIGITIGRADES by a magnificent series of *Felidæ*, which far exceeds any other collection in Europe.

Among them has recently appeared a new species of Jaguar from Western Mexico, described in the Proceedings by Dr. Gray under the name of *Leopardus hernandezii*. The death of Mr. Knight of Mazatlan has prevented the Council from obtaining an account of the habits of this animal, for which they had applied to that gentleman; but it appears, from other information, that this new species has a considerable range on the west coast, and probably extends far into the interior.

The Clouded Tiger, *Leopardus macroscyles*, is another species only found in the Society's collection, and the Council believe that the fact of the Ocelot having bred in confinement is also elsewhere unknown.

The series of smaller Carnivora includes many very interesting species, which future extension of accommodation

will make more conspicuous. The most attractive perhaps of the whole are the pair of Fennecs, which were obtained in 1858.

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| a. <i>Phocidæ</i> . | | |
| 1. <i>Phoca vitulina</i> . | 25. <i>Canis pallipes</i> . | |
| b. <i>Ursidæ</i> . | | |
| 2. <i>Thalassarcos maritimus</i> . | 26. — <i>aureus</i> . | |
| 3. <i>Ursus arctos</i> . | 27. — <i>mesomelas</i> . | |
| 4. — <i>isabellinus</i> . | 28. — <i>simensis</i> . | |
| 5. — <i>americanus</i> . | c. <i>Viverridæ</i> . | |
| 6. — <i>tibetanus</i> . | 29. <i>Viverra civetta</i> . | |
| 7. <i>Prochilus labiatus</i> . | 30. <i>Genetta senegalensis</i> . | |
| 8. <i>Procyon lotor</i> . | 31. — <i>tigrina</i> . | |
| 9. <i>Nasua rufa</i> . | 32. — <i>felina</i> . | |
| 10. <i>Cercoleptes caudivolvulus</i> . | 33. — <i>pardina</i> . | |
| c. <i>Mustelidæ</i> . | | |
| 11. <i>Lutra vulgaris</i> . | 34. <i>Herpestes fasciatus</i> . | |
| 12. <i>Meles taxus</i> . | 35. — <i>smithii</i> . | |
| 13. <i>Gulo luscus</i> . | 36. <i>Cynictis levaillantii</i> . | |
| 14. <i>Mellivora ratel</i> . | 37. <i>Arctictis binturong</i> . | |
| 15. <i>Grisonia vittata</i> . | 38. <i>Paradoxurus typus</i> . | |
| 16. <i>Galera barbara</i> . | f. <i>Hyænidæ</i> . | |
| 17. <i>Mustela erminea</i> . | 39. <i>Hyæna striata</i> . | |
| 18. <i>Putorius fœtidus</i> . | 40. — <i>brunnea</i> . | |
| 19. <i>Martes abietum</i> . | 41. — <i>crocata</i> . | |
| d. <i>Canidæ</i> . | | |
| 20. <i>Vulpes zaarensis</i> . | g. <i>Felidæ</i> . | |
| 21. — <i>argentatus</i> . | 42. <i>Gueparda jubata</i> . | |
| 22. — <i>fulvus</i> . | 43. <i>Leopardus macrurus</i> . | |
| 23. — <i>niloticus</i> . | 44. — <i>pardalis</i> . | |
| 24. — <i>azaræ</i> . | 45. — <i>concolor</i> . | |
| | 46. — <i>viverrinus</i> . | |
| | 47. — <i>macroscelus</i> . | |
| | 48. — <i>varius</i> . | |
| | 49. — <i>hernandezi</i> . | |
| | 50. <i>Tigris regalis</i> . | |
| | 51. <i>Leo barbarus</i> . | |

The collection of QUADRUMANA is always maintained in a sufficiently complete state to demonstrate the differences which characterize their triple division into STREPSIRRHINI, or Lemurs; PLATYRRHINI, Monkeys of the Western Hemisphere; and CATARRHINI, Monkeys of the Eastern Hemisphere.

A great number of species have from time to time appeared in the Monkey House, and it has been proved by the experience of several years that they can only be kept there successfully when a proper relation is maintained between the number of individuals and the cubic contents of the building.

The series is at present in a satisfactory state of com-

pleteness, as to the leading characters of the order; and the excellent health in which the animals are maintained is fully proved by the fact, that no year has recently elapsed without a certain number of births among the hardier species.

a. *Stepsirrhini*.

1. Lemur nigrifrons.
2. — catta.
3. — albimanus.

b. *Platyrrhini*.

4. Cebus apella.
5. — fatuellus.
6. Saimaris sciurea.

c. *Catarrhini*.

7. Silenus veter.
8. Inuus pithecus.

9. Macacus cynomolgus.
10. — radiatus.
11. — erythræus.
12. — pileatus.
13. Cerocebus fuliginosus.
14. Cercopithecus ruber.
15. — pygerythrus.
16. — engythithia.
17. — diana.
18. — sabæus.
19. Cynocephalus porcarius.
20. — sphynx.
21. — babouin.
22. Presbytes maurus.

In this brief review of a collection of living animals, which, great as the exertions which have been made in the sister establishments at Antwerp and Amsterdam undoubtedly are, is still pre-eminent in variety and extent, it has been impossible to give more than indications of the riches which it contains. But some idea of them may be formed from the fact that in 1847 it was composed of little more than 900 individuals, many of them of the most ordinary kind; and that at the present time, after eliminating year by year the least important and least interesting species for the sole purpose of making room for the best, the numerical return has mounted to 1304.

In acknowledging, as they do most cordially and gratefully, the great and increasing assistance received from the numerous donors whose names are this day read to the meeting, they do not wish to assume that the collection, although so considerably advanced, is by any means complete, or that there do not exist many serious lacunæ which it is their anxious desire to fill up. They desire to show that progress has been made, that the co-operation of their supporters is appreciated, and that they on the part of the Society are steadfastly determined to do justice to such invaluable exertions on behalf of zoology as those for which they have to record their thanks to the Governor General of India, and to the gentlemen associated with him in obtaining the Himalayan Pheasants; to the Governor of

the Cape Colony; to Capt. Moore, R.N., the Governor of the Falkland Islands; to W. D. Christie, Esq., Her Majesty's Minister in the Argentine Confederation; to the Hon. Charles Augustus Murray, Her Majesty's Minister in Persia; to Sir John Bowring, Her Majesty's Minister in China; to Mr. Rutherford Alcock, H.M. Consul General in Japan; and to the other members of that extended band of correspondents, whose positions throughout the world give them unparalleled opportunities of affording valuable assistance to the Society.

LIST OF ANIMALS WHICH HAVE BEEN BRED IN THE GARDENS OF THE
ZOOLOGICAL SOCIETY BETWEEN THE 29TH OF APRIL, 1857,
AND THE 29TH OF APRIL, 1858.

MAMMALIA.

Persian Deer.
Sambur Deer.
Rusa Deer.
Barasinga Deer.
Hog Deer.
Eland.
Leucoryx.
Nylghaie.
Cuvier's Gazelle.
Vigne's Wild Sheep.
Silver-Grey Rabbit.
Puma.
Ocelot.
Wolf.
Silver Fox.
West-African River Hog.
Chinchilla.
American Flying Squirrel.
Dorcas Gazelle.
Barred Ichneumon.
Brown European Bear } Hybrid.
Black American Bear }

BIRDS.

Impeyan Pheasant.
Cheer Pheasant.
Purple Pheasant.

Black-backed Kaleege.
 White-crested Kaleege.
 Californian Quail.
 Victoria Crowned-Pigeon.
 Crested Pigeon.
 Senegal Pigeon.
 Cora Dove.
 Barred Dove.
 Undulated Parrakeet.
 Cardinal Grosbeak.
 Zenaida Dove.
 Black-necked Swan.
 Ashy-headed Geese.
 Mandarin Duck.
 Summer Duck.
 Call Duck.
 Muscovy Duck.
 Mountain Goose. *Casarca cana*
 Ruddy Shieldrake. *Casarca rutila* } Hybrid.
 Dusky Duck. *Anas obscura* ♂
 Half-bred Dusky Duck. (*Anas obscura* ♂,
 and *Anas boschas* ♀) } Hybrid.
 Tufted Duck.
 Bahama Duck.
 Common Turtle Dove.
 Sandwich Island Goose.
 Cereopsis Goose.

LIST OF ANIMALS EXHIBITED FOR THE FIRST TIME IN THE
 GARDENS OF THE ZOOLOGICAL SOCIETY OF LONDON,
 BETWEEN THE 29TH OF APRIL, 1858, AND THE 29TH OF
 APRIL, 1859.

I. MAMMALIA.

Hutia. *Capromys fourrieri*. Presented by J. G. Tyrice, Esq.
 Spix's Cavy. *Cavia spixii*.
 Fennec Fox. *Vulpes zaarensis*.
 Ant-Eater. *Cyclothurus didactylus*.
 Presented by E. B. Webb, Esq.
 Mazame Deer. *Blastocerus campestris*.
 Presented by W. D. Christie, Esq.
 Monkey. *Macacus* ——— ?
 Lechee Antelope. *Adenota lechée*.
 Presented by Sir George Grey.

- Maxwell Antelope. *Cephalophus maxwellii*.
Presented by Sir George Grey.
Rehbock. *Pelea capreolus*. Presented by Sir George Grey.
Bush Bok. *Tragelaphus sylvaticus*.
Presented by Sir George Grey.

II. BIRDS.

- Plantain Eater. *Musophaga violacea*.
Large Tinamoo. *Tinamus major*.
Small Tinamoo. *Tinamus* ——— ?
Mooruk. *Casuaris bennettii*.
Presented by George Bennett, Esq.
Ruppell's Spur-wing Geese. *Plectropterus ruppellii*.
New Zealand Rail. *Rallus australis*.
Presented by T. Walker, Esq.
American Siskins. *Chrysomitris tristis*.
Waxbill. Presented by Mrs. Sheldon.
Red-breasted Goose. *Bernicla ruficollis*.
Thick-billed Owl. *Bubo crassirostris*.
Presented by W. D. Christie, Esq.
Darwin's Rhea. *Rhea darwini*.
South African Hornbill. *Bucorvus abyssinicus*.
Presented by J. R. Thompson, Esq.

III. REPTILES.

- Water Newt. *Triton palmipes*. Presented by Dr. Gray.
Water Newt. *Triton alpestris*. Presented by Dr. Gray.
Water Viper. *Cenchrus piscivorus*.
Toad *Bombinator igneus*. Presented by P. L. Sclater, Esq.
Black Salamander. *Salamandra nigra*.
Presented by P. L. Sclater, Esq.
Mocassin Snake. Presented by Odo Russell, Esq.
Common Snakes. *Coluber guttatus*.
Presented by Odo Russell, Esq.
Striped Wampum Snake. *Abastor erythrogrammus*.
Presented by Odo Russell, Esq.
Snake. *Tropidonotus fasciatus*.
Presented by Odo Russell, Esq.
Amphiuma. *Amphiuma tridactylum*. Purchased.
Toad. *Bufo pantherinus*. Presented by P. L. Sclater, Esq.

LIST OF DONORS AND DONATIONS TO THE MENAGERIE.

- HER MAJESTY THE QUEEN. *A Leopard, an Aoudad, a Gazelle, Four Ostriches.*
- HIS MAJESTY THE KING OF PORTUGAL. *A Leopard, a Harpy Eagle.*
- HIS ROYAL HIGHNESS PRINCE ALFRED. *A Cinereous Eagle.*
- HIS EXCELLENCY SIR GEORGE GREY, K.C.B., GOVERNOR OF THE CAPE COLONY. *A Quagga, an Eland, an Antelope, a Maxwell's Antelope, Two Spring Boks, Two Rehboks, a Duyker (Burchell's), a Hog Deer, a Bush Bok.*
- THE EARL OF ORKNEY. *A Puma.*
- THE VISCOUNT HILL. *Nine Emeu's Eggs.*
- HIS EXCELLENCY W. D. CHRISTIE, H.M. MINISTER Plenipotentiary to the Argentine Republic. *Two large Tinamoos, Two small Tinamoos, Two Coypu Rats, an Owl, a Cora Dove, a Jaguar, a pair of Deer (Cervus campestris), Two Ocelots, Two Pumas.*
- LORD HASTINGS, F.Z.S. *A common Seal (young).*
- I. H. DRUMMOND HAY, ESQ., H.M. CONSUL GENERAL IN MOROCCO. *A Leopard.*
- SIR JAMES TYLER, F.Z.S. *A Small Kangaroo.*
- WILLIAM LAWLESS, ESQ., H.B.M. CONSUL AT MARTINIQUE. *Two Snakes.*
- DANIEL MACKINLAY, ESQ. *A Puma.*
- CAPT. HERD, HUDSON'S BAY COMPANY'S SHIP 'PRINCE OF WALES.' *A Red Fox, a Golden Eagle, a Virginian Eagle Owl.*
- CAPT. WISHART, HUDSON'S BAY COMPANY'S SHIP 'PRINCE ARTHUR.' *Two Virginian Eagle Owls, a Peregrine Falcon.*
- LADY CUST. *Sabella and Tubularia, a Proteus.*
- THE HON. CHARLES ELLIS. *A Spotted Salamander.*
- ARTHUR RUSSELL, ESQ., M.P., F.Z.S. *Seven Snakes, Three Water Tortoises, Two Box Tortoises, a Bull Frog.*
- PROFESSOR OWEN, V.P.Z.S. *A Lepidosiren.*

- Dr. Gray, V.P.Z.S. *Two Triton palmipes, Fourteen Water Lizards, Four Snails, Twelve Frogs, Twelve Toads, Two Aldrovand's Lizards.*
- John Gould, Esq., V.P.Z.S. *Two Crossbills, Six Kingfishers.*
- J. H. Gurney, Esq., M.P., F.Z.S. *A Peregrine Falcon, an African Kite.*
- George Bennett, Esq., of Sydney, F.Z.S. *A Mooruk.*
- M. Greenaway, Esq. *A Duyker Bok.*
- T. K. Fletcher, Esq. *A Great Kangaroo.*
- J. G. Tyrie, Esq. *A Hutou.*
- C. P. Serocold, Esq., F.Z.S. *A Black Rat.*
- Capt. Isaac Wylde. *A Spotted Cavy.*
- Capt. Abbott. *A Raccoon.*
- Robert Selby, Esq. *A Bonnet Monkey.*
- Hugh Cuming, Esq., Corr. Mem. Z.S. *A Chamæleon.*
- F. Wood, Esq. *A Grey Squirrel.*
- G. H. Brooks, Esq. *A Green Monkey.*
- George Campbell, Esq. *A Macaque Monkey.*
- E. Lormitte, Esq. *A Rhesus Monkey.*
- C. Adamson, Esq. *A Green Monkey.*
- Colonel D'Arcy. *A Squirrel.*
- George Bogue, Esq. *A Vervet Monkey.*
- Mr. Gordon. *A Vervet Monkey.*
- T. Robinson, Esq. *A Rhesus Monkey.*
- R. Dennistoun, Esq. *A Vulpine Phalanger, a Maugé's Opossum.*
- T. H. Devitt, Esq. *Two Bennett's Kangaroos.*
- C. G. Mann, Esq. *A Macaque Monkey.*
- Dr. Houghton. *A Bonneted Monkey.*
- Alexander Collie, Esq. *An Ocelot.*
- Messrs. Harrington and Co. *A Monkey.*
- Lieut.-Col. J. T. Bush. *A Persian Cat.*
- E. B. Webb, Esq. *An Anteater.*
- Thomas Hawes, Esq., F.Z.S. *Three Banded Ichneumons.*
- G. W. Nixey, Esq. *A Guinea Baboon.*
- Capt. Lee Steene. *A Paradoxure Genet.*
- Z. Bowden, Esq. *A Chamæleon.*
- Mrs. Cambridge. *A Guinea Baboon.*
- T. Brettell, Esq. *A Crested Porcupine.*

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| Edmund Pace, Esq. | <i>A Macaque Monkey.</i> |
| F. H. D'Arcy, Esq. | <i>A Raccoon.</i> |
| Mrs. Gell. | <i>A Rhesus Monkey.</i> |
| Miss H. C. Rose. | <i>A Vervet Monkey.</i> |
| Rev. John G. H. Hill. | <i>Two White Rats.</i> |
| Mrs. Dolgety. | <i>A Vervet Monkey.</i> |
| George Gillett, Esq., F.Z.S. | <i>A Wolverine, a Green Monkey.</i> |
| Mr. Searl. | <i>A Macaque Monkey.</i> |
| F. Stephens, Esq. | <i>A Common Badger.</i> |
| J. A. Casamayor, Esq. | <i>A Macaque Monkey.</i> |
| Mrs. Constable. | <i>A Rhesus Monkey.</i> |
| Mrs. Young. | <i>A Guinea Conure.</i> |
| J. Stauffere, Esq. | <i>Two Alpine Marmots.</i> |
| Mr. J. Salter. | <i>Two Black Rats.</i> |
| Edward Fountaine, Esq. | <i>An Eagle Owl.</i> |
| F. P. Allison, Esq. | <i>A Lesser Sulphur-crested
Cockatoo.</i> |
| John Cook, jun., Esq. | <i>A Red-throated Diver.</i> |
| Captain Salvin. | <i>A Peregrine Falcon.</i> |
| Samuel Magnus, Esq. | <i>A Wedge-tailed Eagle.</i> |
| A. Davis, Esq. | <i>Twelve Passerine Parrakeets,
a Guan, a Mealy-green
Parrot.</i> |
| Miss Lorbes. | <i>A Waxbill.</i> |
| J. B. Cameron, Esq. | <i>A Globose Curassow, a Crested
Guan.</i> |
| F. Clark, Esq. | <i>An Alexandrine Parrakeet.</i> |
| R. Harfield, Esq. | <i>A Globose Curassow.</i> |
| Thomas Walker, Esq., F.Z.S. | <i>Two New Zealand Rails.</i> |
| A. H. Webb, Esq., Lieut. R.N. | <i>A Buffon's Touraco.</i> |
| Mrs. Hawkshaw. | <i>A Common Quail.</i> |
| Mrs. Sheldon. | <i>Nine Weaver Birds, Eight
African Sparrows, Four
Blue Finches, Three Fire
Finches, Two Combosue
Finches, Four Waxbills,
Twelve Manikins.</i> |
| S. C. Baker, Esq., F.Z.S. | <i>A Scoter Duck.</i> |
| Wm. Russell, Esq., F.Z.S. | <i>A Kingfisher.</i> |
| Donor unknown. | <i>A Small Guan.</i> |
| Edgar Ray, Esq. | <i>A Long-billed Cockatoo.</i> |
| E. Newton, Esq., F.Z.S. | <i>A White-crowned Pigeon.</i> |
| Anthony Salvin, jun., Esq., F.Z.S. | <i>A Blue and Yellow Maccaw.</i> |
| R. F. Jarvis, Esq. | <i>A Plover.</i> |

- Miss Perry. *A Common Magpie.*
H. Villebois, Esq., F.Z.S. *A Woodcock.*
Rev. F. O. Morris. *A Peregrine Falcon.*
Alexander Mackintosh, Esq. *A Laughing Kingfisher.*
B. Oliveira, Esq., F.Z.S. *Two Finches from Mogador.*
Capt. H. Reynolds. *Two Latham's Grass Finches,*
Five other Finches.
- A. S. Mullens, Esq. *3 Green Lizards.*
Rev. E. Cavendish Taylor, F.Z.S. *A Slow Worm, a Water*
Tortoise, a Land Tortoise.
- F. Bond, Esq., F.Z.S. *Two Green Lizards.*
M. Van Buren Wisker, Esq. *An Aldrovand's Lizard.*
P. L. Slater, Esq., F.Z.S. *Two Toads, a Salamander.*
Miss Somerville. *Two Land Tortoises.*
Odo Russell, Esq. *Four Water Tortoises (Emys*
sigriz).
- D. W. Mitchell, Esq., Sec. Z.S. *Four Wall Lizards, Three*
Wiegmann's Trogonophs, a
small Snake.
- Lieut. Richardson, R.A. *A Boa Constrictor.*
G. R. Gray, Esq. *Six Green Lizards.*
Capt. John Peel. *A Common Adder.*
H. A. Montague, Esq. *Three Green Lizards.*
A. Arcedeckne, Esq., F.Z.S. *Eleven Cray Fish, Twenty*
Shore Crabs, Twenty-three
American Clams, Twelve
American Oysters, Two
Tench, Three Oysters,
Twelve Jersey Oysters.
- J. S. Gaskoin, Esq., F.Z.S. (deceased). *Marine Animals.*
Mr. Rule. *Four Lobsters, Thirty Shore*
Crabs, Three Lobsters,
Sixty Winkles.
- John Forster, Esq. *Eight Medusæ.*
Mr. Thomas Hall. *Fifty-four Actinia troglo-*
dytes, One Actinia crassi-
cornis.
- John Goddard, Esq. *Sabellæ.*
Geo. Wm. Bell, Esq., F.Z.S. *Several collections of Marine*
Animals.
- Dr. Günther, Foreign Memb. Z.S. *Eggs of Cuttle Fish.*
— Hart, Esq. *Actinia crassicornis.*
T. L. Ingram, Esq. *A Lepidosiren.*
E. W. H. Holdsworth, Esq., F.Z.S. *Six Actiniæ.*

Richard Tress, Esq., F.Z.S.	<i>Three Dace, Two Roach, Two Pike.</i>
H. J. R. Gaskoin, Esq., F.Z.S.	<i>Two Snails and a Glass Case.</i>
P. H. Gosse, Esq.	<i>Haliotis tuberculata, an Actinia.</i>

Conclusion.

The Council cannot conclude this Report without placing on record their sense of the great obligations which the Zoological Society owe to Mr. Mitchell, who for the period of twelve years has filled the important situation of Secretary. They feel that the present prosperous and satisfactory position of the Society is chiefly, if not entirely, owing to the great ability and zeal of Mr. Mitchell.

With the view of bringing in a succinct form before the Fellows the improved position of the Society at the present time, as compared with what it was at the time of his appointment in 1847, they beg to call the attention of the Society to the subjoined statement.

The average Income of the Society, for the seven years previous to 1847, was £9,199. The average of the seven years, to Dec. 31, 1858, amounts to £15,062. For some years previous to 1847, the Income of the Society had been gradually falling off, and in that year was only £7,765, whereas in 1858 it amounted to no less a sum than £14,034—almost double of what it was at the time of Mr. Mitchell's appointment.

This great increase is mainly owing to the important improvements which have been made in the Gardens under the advice and superintendence of Mr. Mitchell. During that period, large additions have been made to the Collection of Animals, and most important improvements and additions have been made to the Buildings for their reception.

Great expense has been incurred on both those objects; but the Council have the satisfaction of being able, at the same time, to state, that, owing to the judicious manner in which the money has been laid out under Mr. Mitchell's direction, the attraction of the Gardens, and the interest felt in them by the Public, attested by the number of Visitors, has so greatly increased, as to give an excellent return for the money expended. The average number of Visitors for

the seven years previous to 1847 was 111,500, and for the seven years ending Dec. 31, 1858, was no less than 350,620.

The Buildings which have been erected of late years are of a substantial construction, will require little or no repair for many years to come, and as an investment of capital, might be fairly considered as forming part of the Assets of the Society; but leaving them, and the additional value of the Collection of Animals, out of the account, the Net Assets of the Society, after deducting all Liabilities, and notwithstanding the very heavy expenses incurred in the erection of new Buildings and the repairs of the old, have increased since 1847 by the sum of £912, the Assets in 1847 being £5254, and in 1858, £6166. For these great improvements in their circumstances the Society is indebted to Mr. Mitchell.

Greatly as the Council must regret the loss of the services of so valuable an officer, they have the satisfaction of feeling that the whole of the concerns of the Society are now placed on so sure and solid a basis, that the task of maintaining them in their present satisfactory condition will be comparatively easy.

The Council, in order to mark their sense of the value of Mr. Mitchell's services, of his zeal and assiduity, and of his unremitting attention to promote the prosperity of the Society, at their Meeting on the 20th inst., came to the unanimous resolution to present to him, on his retirement from the office of Secretary, a Gratuity of £500, in consideration of his long and valuable services to the Society.

REPORT
OF THE
AUDITORS OF THE ACCOUNTS,

Appointed February 3, 1859.

THE Auditors have examined the Accounts of the Society for the year ending December 31, 1858, inspected the Books and seen Vouchers for all the Payments ordered by the Council, and now lay before the Society an Abstract of such Accounts, with a Statement of Assets and Liabilities, and a Report thereon.

Expenditure incurred in 1858.

	Paid in the Year.			Unpaid, Dec. 31.			Total.		
	£	s.	d.	£	s.	d.	£	s.	d.
Rent, Rates, Taxes, &c.	689	5	1	226	13	6	915	18	7
Salaries, Wages, Pensions &c....	3,276	7	2	.....	.....	.....	3,276	7	2
Cost of Animals	458	19	2	3	6	6	462	5	8
Carriage of ditto and Keep- } ers' Expenses	316	1	6	14	10	0	330	11	6
Provisions.....	2,348	6	11	179	16	8	2,528	3	7
Menagerie Expenses	1,235	2	4	125	14	6	1,360	16	10
Keepers' Dresses	97	0	6	.....	.....	.....	97	0	6
Works, Repairs, Alterations, &c.	942	15	10	25	15	6	968	11	4
Garden Expenses.....	491	1	1	0	18	0	491	19	1
Band Expenses	160	15	0	.....	.....	.....	160	15	0
Advertisements	129	5	1	.....	.....	.....	129	5	1
House and Office Expenses.....	213	2	11	12	4	9	225	7	8
Library Expenses	67	10	6	9	6	7	76	17	1
Museum Expenses	15	18	10	7	15	0	23	13	10
Stationery and Account Books...	44	8	0	7	19	0	52	7	0
Printing (Miscellaneous).....	113	12	9	17	13	6	131	6	3
Transactions.....	39	0	6	16	13	4	55	13	10
Proceedings	537	6	1	194	14	8	732	0	9
Returned Subscriptions	20	11	0	.....	.....	.....	20	11	0
	11,196	10	3	843	1	6	12,039	11	9

The Committee of Auditors congratulate the Society upon the continued improvement in its finances, the Income, notwithstanding the unfavourable weather during the Holidays, and the absence of any extraordinary novelties in the Menagerie, having exceeded £14,000, while the Expenditure only reached £12,195, being £2156 less than the amount of payments in the previous year. In consequence of this successful result, the Council were able to increase the reserved Fund by the purchase of £1500 Stock, raising it to £4500. The Auditors notice this improvement in the finances with great satisfaction, as it has been effected without any diminution of the efficiency of the Garden Establishment, which, it is only just to observe, has been maintained in the most admirable state of neatness and order.

Although the total number of Visitors in 1858 was not quite so great as in the year 1857, there is no decrease of the interest felt by the public, as, notwithstanding the comparative failure of the weather at Easter and Whitsuntide, the Visitors on Mondays show an increase of upwards of 2000, exclusive of the number of Charity Children admitted gratuitously, who amounted to 18,600.

The Committee consider the present financial position of the Society as deserving especial notice, and have pleasure in calling the attention of the Fellows to the fact, that the Liabilities on the 31st of December were only estimated at £850, whilst the Balance at the Banker's amounted to £1420 16s. 3d., leaving a further surplus of £570, which added to the investment of £1449 in the funds, gives a clear surplus of £2019 on the operations of the year.

The steadiness of the Income for the last nine years, from 1850 to 1858 inclusive, during which period the gross receipts have been no less than £146,000, is a most satisfactory proof of sound management, and presents a most encouraging contrast to the nine years immediately preceding, viz. from 1841 to 1849 inclusive, in which the Income gradually declined to little more than half the amount to which it was raised in 1850, and at which it has been maintained from that time.

The Committee entirely concur with the view of the Council as to the propriety of applying the surplus of the past year to the increase of the reserve fund, which they trust will never be reduced below £5000 as a minimum.

Your Committee of Auditors, in concluding their Report, again express their perfect satisfaction, and thank the Accountant, Mr. Leigh, for the admirably clear and accurate manner in which the accounts have been submitted to them.

EDWARD GREENAWAY.
EDWARD HAMILTON.
EDWARD PERIGAL.
JOHN D. SALMON.
SAMUEL OXENHAM.
WILLIAM MARTYN.
EDWARD JOHNSTONE.

11 *Hanover Square*, February 23, 1859.