









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

READ AT THE ANNUAL GENERAL MEETING,

APRIL 30TH, 1855.

LONDON:
PRINTED BY TAYLOR AND FRANCIS,
RED LION COURT, FLEET STREET.

1855.

REPORTS

COUNCIL AND ASSOCIATES

ZOOLOGICAL SOCIETY

in
to
of
the

THE
SOCIETY

The number of members

—

18

19

20

21

22

23

24

REPORT OF THE COUNCIL.

IN accordance with the provisions of the Charter, the Council have now the pleasure of presenting to the Society their Twenty-sixth 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 1736. Of these, there are

Compounders, paying £20	279
Ditto ditto £30	205
Paying annual contributions of £2	420
Ditto ditto £3	624
Dormant	136
Admission Fees unpaid	21
Ditto remitted	5
Annual Subscribers, paying £3	46
	<hr/>
	1736

Of these, 114 have been elected since the last Anniversary.

The number of deaths during the same period has been 48.

The number of resignations has been 17; and the removals ordered by the Council, in conformity with the Bye-laws of the Society, have been 4.

The number of Candidates is 21.

The total number of Fellows has been increased by 45, and now presents, as was anticipated by the Council in their last Report, a full confirmation of the existence of a permanent interest in favour of the Society among the most educated classes. The improvement which has taken place since 1851, notwithstanding deaths, resignations and the removal of defaulters, amounts to no less than 94

Members; and the Candidates already elected and proposed for election during the current year are sufficiently numerous to remove all anxiety for the result of the ensuing twelvemonths.

2. FINANCES.

a. Income.

The gross INCOME of 1854 must be considered as exceedingly favourable, considering the disadvantageous circumstances of sickness under which the metropolis laboured during the months of June, July, August and September last; for notwithstanding the comparative decrease which took place in the Garden Receipts from the 1st of June to the middle of August, the income of the year reached £16,901 11s. 9d., presenting a decrease of only £606 16s. 9d., as compared with the very successful year of 1853, and far exceeding the seven preceding years, with the exception of 1851.

The actual decrease at the Garden Gates only amounted to £544 2s., a sum which has more than once been obtained on a single day; and the gross receipts having been £10,798 19s. 6d., the year 1854 was only second in this respect to 1851, 1831 and 1853, as will be seen by the following

Table of Receipts for Admission to the Gardens from their first opening to the Public in 1828.

	£		£
1851	22,248	1838	5,639
1831	11,425	1839	5,004
1853	11,343	1841	4,660
1854	10,799	1849	4,652
1850	10,462	1840	4,584
1830	9,774	1848	4,208
1836	9,463	1845	4,146
1832	9,001	1842	4,022
1829	8,143	1828	4,017
1833	7,954	1844	3,905
1852	7,929	1846	3,872
1834	7,545	1843	3,746
1835	7,343	1847	3,527
1837	5,648		

The largest item of decrease was under the head of Garden Sales, by which there was realized £330 4s. 9d.

less than in 1853. But as the sales in that year were unusually large, in consequence of the great accumulation of the most valuable class of duplicates which had then taken place, the sum of £1004 9s. 3d., to which the sales of 1854 actually amounted, cannot be considered in any other light than as a most satisfactory proof of the riches and good condition of the Collection.

That this source of income will be fully as productive during the current year is already placed beyond a doubt.

Feeling therefore that the fluctuations in these two sources of income have been as small as it was possible to anticipate, the Council have great pleasure in noticing the gratifying increase which took place during 1854 in the Subscriptions, Admission Fees and Compositions.

The *Subscriptions* amounted to £2803 12s., and presented an improvement of £239 3s. as compared with 1853.

The *Admission Fees* amounted to £590, and presented an increase of £160.

The *Compositions* amounted to £900, and presented the very important increase of £380.

The inference to be drawn from the steady increase which has been established in these permanent sources of income since the year 1851, is eminently gratifying, as affording incontrovertible testimony of the appreciation by the intelligent classes, of the efforts which the Council have made to extend and improve the general scope of the establishment, while rendering it as accessible and as popular as the constitution of the Society will permit.

That this course has been eminently successful in securing the approbation of the Public, for whose benefit it was intended, is admirably established by the following comparison of the number of Visitors subsequent and anterior to 1848 :—

Table of Visitors to the Gardens.

Periods {	1828-1847. 20 years.	1841-1847. 7 years.	1848-1854. 7 years.
Total number.....	3,353,199	733,088	2,462,125
Annual average	167,659	104,726	351,732

And taking the year generally, it is most satisfactory to the Council to observe that the decrease in the total number of Visitors, as compared with 1853, in consequence of the increase of Fellows, and the admissions by Fellows' orders, only amounted to 1400, notwithstanding many unpropitious circumstances, while the decrease of Visitors at the British Museum, as compared with 1853, amounted to no less than 201,851; the comparative numbers being as follows:—

British Museum.		Zoological Gardens.	
1853	..... 661,113	1853	..... 409,076
1854	..... 459,262	1854	..... 407,676

The great successes of previous years were even exceeded on the Easter Monday and Whit Monday of 1854; an aggregate of 37,370 persons having been admitted to the Gardens on those two days alone.

b. Expenditure.

The EXPENDITURE paid in the year 1854 amounted to £19,043 19s. 5d., consisting of

	£	s.	d.
Arrears of 1853	2,248	11	8
Extraordinary Expenditure for Permanent Buildings in 1854	2,593	9	5
Ordinary Expenditure	14,201	18	4
	<u>£19,043</u>	<u>19</u>	<u>5</u>

Of these payments, £17,568 17s. 10d. was provided for by the income and previous Banker's balance, and £1840 by the sale of £2000 Reduced 3 per Cent. Stock.

With reference to the latter operation, the Council have to observe that it would have been unnecessary, as it was unanticipated, had not the increase of income derived from the Garden Admissions, which characterized the first five months of 1854, been counteracted by the rapid decrease which took place, as before alluded to, during the prevalence of the epidemic in June, July, August and September.

The whole sum sold out is more than represented by the permanent Buildings which have been erected in 1854.

Feeling, however, the desirableness of maintaining a sufficient reserve fund to meet possible contingencies, the Council, in arranging the expenditure of the current year, have determined to reinvest the sum sold out during 1854, before any further works are executed.

They have pleasure in stating that the income received up to this time amounts to one-fourth of their estimate for the year, while the expenditure, notwithstanding the high price of provision, falls below their estimate, without in any way diminishing the attraction of the establishment, which they consider as vitally important to the existence of the Society and the prosecution of its objects.

The EXTRAORDINARY EXPENDITURE for Permanent Buildings, Works, and Improvements, includes the following works:—

Hippopotamus House.

Glass Screen for Lions' Dens.

Additional Fittings of the Aquavivarium.

Refreshment Stall.

Repair and Improvement of the Monkey House.

Anteater's House.

Green House.

New Roads and Drainage, and some minor works, amounting in all to no more than £2593 9s. 5d.

The ORDINARY EXPENDITURE:—

1. *The Expenditure for the Purchase and Carriage of Animals* amounted to £1924 19s. 4d. The most important item in this branch of expenditure is the cost incurred in transporting from Cairo the fine female Hippopotamus, which was presented to the Society by His Highness the late Viceroy of Egypt, at the solicitation of the Hon. C. A. Murray and the Hon. F. C. Bruce, Her Majesty's Consul-General in that country. The experience acquired in 1850 rendered this a comparatively easy undertaking; and the Council have again to express their thanks to the Directors of the Peninsular and Oriental Steam Navigation Company for their liberality and care in giving facilities for the safe conduct of this valuable animal.

2. *The Menagerie Expenses* amounted to £1307 0s. 3d. Coals, Straw, and Sea-water have proved the heaviest items under this head, which includes a considerable amount of

labour, and all the miscellaneous expenses of the establishment not otherwise accounted for.

3. *The Provisions* amounted to £3609 12s. 7d., notwithstanding the extensive use of horse-flesh in feeding the Carnivora, and every other economy which could be safely practised with regard to the health of the animals. This increase is principally due to the advanced price of meat and of hay, the quantity of these articles now consumed in the Menagerie being far more considerable than in former periods, when the Collection of Carnivora, Pachyderms, and Ruminants was far inferior to its present state.

4. *The Repairs, Painting, &c.* have amounted to £2577 4s. 10d. Wear and tear in an establishment like that of the Society is necessarily very great, and the only means of reducing the expenditure under this head within moderate limits is to prevent the accumulation of dilapidations, as well by constant and timely attention, as by substituting brick and stone for wood whenever it is possible.

The great improvements which have been effected in this last respect will, the Council trust, enable them henceforth to effect a considerable decrease in this part of the expenditure, considered in relation to the great extent of the Society's property.

5. *Gardeners' Department.*—The expenditure under this head amounted to £792 18s. 1d.; of which £567 17s. 9d. was the cost of labour, and £140 19s. 6d. for the purchase of Plants, Seeds, and Evergreens. The effects produced appear to have given general satisfaction to the Fellows as well as to the Visitors, and the Council have every reason to be satisfied with the improved results of this interesting accessory to the attractions of the Society's establishment.

Among several minor donations to this department, it is only fair to distinguish the liberality of Mr. Turner of Slough, who presented 1500 of the finest Dahlia Plants, and furnished the large parterres on the south side of the Garden in the most brilliant and effective manner.

The increased stock of those plants which have proved most successful in the Regent's Park is now so considerable, that, except under very adverse contingencies, the general effect of the Garden must be still more striking in the course of the current year than even in the summer of 1854.

c. Assets and Liabilities.

The CASH ASSETS of the Society on the 31st of December 1854 amounted to—

	£	s.	d.
Money at the Bankers	362	15	5
Paid for £3000 Red. 3 per Cent. Stock . .	2635	2	4
Due on account of Subscriptions	422	0	0
" " Ivory Tickets	7	7	0
" " Publications	88	13	0
" " Garden Sales	3	0	0
Total	£3518	17	9

The LIABILITIES at the same time amounted to £2834 17s.

II. PUBLICATIONS.

During the year which has elapsed since the last Anniversary, the arrears of the Proceedings, with the exception of the last Meeting in 1854, and one other number now in the press, have been brought up to the latest date, and the letter-press of the current year, as far as the 10th of April, is now ready for delivery to the Fellows. Nearly the whole of the Illustrative Plates have been executed up to the close of 1854, and the issue of them will take place as soon as the colourist has completed his work.

Arrangements have been made which will ensure the issue of the Proceedings in monthly or bimonthly portions, and render them one of the most rapid vehicles of zoological publication in Europe. The quality of the Illustrations, in which the vertebrate portion is mainly from the hand of Mr. Wolf, is admitted to be unrivalled in the periodical literature of Natural History.

Papers by Professor Owen on the Anatomy of the Anteater, and of the Anthropoid Apes, are in preparation for the next Part of the Transactions.

III. LIBRARY.

The usual additions of Scientific Periodicals have been made to the Library, principally from publishing Societies in exchange for the Society's works.

The series of original Drawings, alluded to in former

Reports, as recording the characteristics of the most rare and interesting animals in the Menagerie, has been continued, and includes the following additional species :—

Lioness and Young.	Tasmanian Wolf.
Diard's Cat.	Black-tailed Deer.
Grey Ocelot.	Young Brush Turkey.
Indian Lynx.	Indian Stork.
Red Lynx.	Iceland Falcon.
Genet, n. sp.	Greenland Falcon.
Bassaris astuta.	Cerastes gabonicus.
American Skunk.	Hardwick's Partridge.

The principal DONATIONS to the Library since the last Anniversary consist of *Transactions* and *Proceedings* from

- The Royal Society.
- The Royal Society of Edinburgh.
- The Linnean Society.
- The Entomological Society of London.
- The Royal Irish Academy of Dublin.
- The Tyneside Naturalists' Field Club.
- The Royal Academy of Sciences of Paris.
- The Imperial Academy of Sciences of Vienna.
- The Royal Academy of Sciences of Berlin.
- The Royal Academy of Sciences of Munich.
- The Senkenbergian Society of Frankfort.
- The Imperial Academy of Naturalists of Breslau.
- The Dutch Society of Sciences of Haarlem.
- The Royal Academy of Sciences of Amsterdam.
- The Royal Academy of Sciences of Madrid.
- The Imperial Academy of Sciences of Copenhagen.
- The Royal Academy of Sciences of Stockholm.
- The American Philosophical Society of Philadelphia.
- The Wisconsin State Agricultural Society.
- The Royal Society of Van Diemen's Land.

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

- The Royal Geographical Society of London.
- The Royal Agricultural Society of England.
- The Geological Society of London.
- The Horticultural Society of London.
- The Royal Asiatic Society of Great Britain and Ireland.

The British Association for the Advancement of Science.
 The Society of Arts.
 The Royal Institution of Great Britain.
 The Art-Union of London.
 The Royal Botanic Society of London.
 The Ethnological Society of London.
 The Statistical Society of London.
 The Literary and Philosophical Society, Liverpool.
 The Geological Society of Dublin.
 The Lyceum of Natural History of New York.
 The Academy of Natural Sciences, Philadelphia.
 The Franklin Institute.
 The Smithsonian Institution, Washington.
 The Boston Society of Natural History.
 The Royal Academy of Sciences of Paris.
 The Museum of Natural History of Paris.
 The Royal Agricultural Society of Lyons.
 The Imperial Academy of Lyons.
 The Royal Academy of Sciences of Munich.
 The Physical and Natural History Society of Geneva.
 The Society of Natural Sciences of the Canton of Vaud.
 The Royal Academy of Sciences of Belgium.
 The Royal Society of Sciences of Liège.
 The Natural Society of Sciences of Neufchâtel.
 The University of Basle.

Donations have also been received from Dr. Auguste Duméril, Corr. Mem.; M. Petit de la Saussaye; M. Guérin-Méneville; M. Felipe Poey; Dr. P. Bleeker; M. Pouchet; M. Carl Ruhn; Professor J. Joseph Bianconi; Mr. Babbage; Professor J. J. S. Steenstrup; Dr. Edward F. Kelaart, Corr. Mem.; The Commissioner of Patents, United States; Captain Marcy, U. S. A.; Captain L. Sitgreaves, U. S. A.; Dr. Amos Binney; The Honourable East India Company; Dr. Marshall Hall, F.Z.S.; George Pilcher, Esq., F.Z.S.; Philip Kernan, Esq., F.Z.S.; N. B. Ward, Esq.; the Editor of the Athenæum Journal; the Editor of the Zoologist; the Editor of the Literary Gazette; the Editor of the Pharmaceutical Journal; the Editor of the Agricultural Magazine.

IV. GARDEN ESTABLISHMENT.

a. WORKS.

The Works effected during 1854 were necessarily very extensive, and include—

1. *The Hippopotamus House*.—This is a large building of great strength, with a bath 35 feet in length, 15 feet in breadth, and 9 feet deep; fenced with massive iron railings of a strength commensurate with the enormous force which the animal is rapidly attaining.

2. *Glazed Screen* to the Lions' Dens on the north side of the Terrace, 30 feet in length by 20 feet in width.

The efficiency of this structure in preserving the health of the young animals which have been kept in it during the winter, has been most severely tried, and has proved eminently successful.

The provisional arrangement of tarpaulin blinds on the south side of the Terrace has been no less fortunate, and has given further proof of the necessity of protecting the stronger Carnivora against wind, damp, and sudden transitions of temperature. No casualties whatever have occurred in the Terrace, containing a collection which cannot be estimated at less than £2400 in actual commercial value; the illness which attacked the Asiatic Lions, in consequence of exposure at the early part of the winter, having yielded to judicious treatment.

3. Entire repair and improvement of the *Monkey House*, including the fitting-up and arrangement of the basement, with a fenced and paved yard in the rear.

The ameliorated atmosphere, and the increased cleanliness of this building have reduced the number of deaths to less than six in the course of the winter; while three young Monkeys have been born in it.

4. The entire repair, refitting and rearrangement of the *old Parrot House*, now adapted for small Carnivora, for which there was no accommodation previously.

Here also the animals have almost entirely escaped disease; the death of the Wolverine, obtained through Mr. Wolley, being the only noticeable instance.

5. *A Winter House for Carnivora*, with Aviaries annexed (200 feet long) in the Park, consists principally of buildings removed from the neighbourhood of the Broad Walk, where the odour of the animals was offensive. Having

been thoroughly repaired and rearranged, they now form a useful construction for Carnivora of moderate size, and are eminently calculated for the more delicate species. The Aviaries contain an interesting collection of Pheasants, Grouse, &c. &c., and are generally applicable to any species of Gallinaceous Birds.

6. Making and bottoming with brick several ponds.

7. Several hundred yards of roads and walks with effective drains.

8. *Glass House* and *Enclosure* for Anteater.

9. Repair and rearrangement of the Basement Story of the *Giraffe House*, now containing sleeping apartments for six Keepers, and a variety of useful accommodation which has proved of great advantage.

10. Repair of the *Semicircular Aviary* in the South Garden, in which the Tasmanian Wolf, and many of the more delicate Gallatorial Birds have passed the winter in safety.

11. *Eagle Cage*, in the Flower Garden, 15 feet in length by 10 feet in depth, exclusive of a Shed to replace the Building removed to the Park.

12. Three useful *Sheds* for the Dissections, Gardeners, and Slaughter-men.

13. Repair and rearrangement of the *Greenhouses*.

14. Together with several *Minor Works*, which have placed the Menagerie Establishment on a sufficiently advantageous footing, not only to preserve the animals effectually, as is evinced by the great diminution of casualties, but to preclude the necessity for any further immediate outlay.

b. MENAGERIE.

The general health and condition of the Menagerie is of the most satisfactory character, and the Council have great cause to congratulate the Society on the very remarkable success which, notwithstanding the disadvantages of an unusually prolonged and adverse winter, has preserved the Collection from any casualties beyond those which are of inevitable occurrence in an assemblage of nearly 1200 specimens, gathered from the most opposite climates and necessarily subject to extremely unnatural conditions in confinement. By gradually eliminating the species of least importance, and by losing no opportunity of adding a new one, the Council flatter themselves that they have carried the interest of the Collection, as a series of zoological types, as far as circumstances will admit. The success which has attended their efforts thus far is so encouraging, and

the public appreciation of it so earnest, that they have no hesitation as to their power of maintaining the improvements they have thus far effected.

Looking at the pecuniary value of the Collection alone, they cannot but regard it as more than doubled within the last seven years, and the gross amount of it, from the unique character of many of the animals added within that period, must be estimated at a very large sum.

In the scheme which the Council propose to themselves for the maintenance of this splendid series (beyond which, numerically, it is impossible to go, with the existing means of accommodation), their principal object will be to present as many types of form as possible, with the view of illustrating the generic variations of the Animal Kingdom, rather than to accumulate a mere mass of species from which comparatively little can be learnt by the Visitor.

By a careful selection of this kind, the Council believe that the general plan of the Founders can be best carried out; while they desire to lose no opportunity of contributing their aid to another most interesting and important object, which entered so largely into the first project of this Society, namely the Acclimatation of Exotic Animals, whose economic utility or beauty renders them desirable.

If hitherto but little progress has been made in this direction, it is mainly because the experiment has not been vigorously prosecuted, and the conditions of a Menagerie, at all times open to vast crowds of Visitors, are not altogether the most favourable for success.

Much success may be obtained however even under these circumstances, as the Council have now satisfactory proof in the Society's Establishment. And they have the greater pleasure in bringing these interesting facts to the notice of the Fellows in consequence of the foundation of a sister Zoological Society in France, whose efforts are solely directed towards this object.

The animals to which the Council particularly desire to allude are the *Eland Antelopes* of South Africa; the *Australian Brush Turkey*; the *Impeyan Pheasant*, or *Monaul* of Northern India, and two species of the true type of Pheasant from China and Japan.

1. THE ELAND. *Boselaphus oreas*.

In the year 1851, the Society received as a bequest from their late President, the Earl of Derby, five Elands. Of these two were males, received in the month of June in

that year from Natal, and then aged about 10 months; the other three were females, one bred at Knowsley, about the year 1844, two imported from Africa in the year 1850, having been probably fawned in 1849.

From these females six fawns have been produced since their arrival in the Society's Garden.

1. ♀, born July 29, 1853.
2. ♂, born July 4, 1853.
3. ♀, born Jan. 10, 1854.
4. ♀, born July 8, 1854.
5. ♀, born July 8, 1854.
6. ♀, born March 3, 1855.

Of these, one female has been sent to the Continent, and the herd consequently now consists of three males and seven females. One of the old females, and the eldest of the fawns bred here, are now in young.

The certainty of their reproductive power in the climate of Europe is thus clearly established.

The rapidity with which they attain their size is also fully made out by the development of the first and second fawns, not yet two years old, but already thirteen hands in height; notwithstanding the disadvantages under which they have laboured, as young stock, from too close confinement.

The quality of the flesh as an article of food, according to the unanimous evidence of hunters and travellers in Africa, is exquisite.

The amount of protection they require is not greater than that which is given to fattening cattle in first-rate establishments.

There is therefore no room to doubt that the herd now possessed by the Society, if managed to the best advantage, may be made the means of acclimating and establishing in the parks of England a new animal, not less beautiful than deer, and scarcely, if at all, inferior to venison as an article of food.

The accommodation which is afforded by the Society's Establishment being inadequate to the number of Elands which have thus accumulated there, it is absolutely necessary that their number should be reduced, and that the very interesting and important experiment of continuing the herd so successfully commenced, should be carried on elsewhere.

In parting with the surplus stock of these animals, the Council are naturally anxious that they should pass into

hands in which their economic value will not be lost sight of, as they justly believe that much credit will be acquired by the Society if the acclimatation of this noble species is permanently effected.

2. AUSTRALIAN BRUSH TURKEY. *Talegalla Lathamii*.

The pair of Australian Brush Turkeys received in 1849 and 1850, having exhibited a desire to breed, were placed in the summer of last year in an enclosure provisionally adapted for them, where they had access to abundant materials for making a mound.

They commenced their work immediately, and between the 16th of May and the 21st of June, ten eggs were deposited in it.

The first egg was completely hatched out on the evening of July 18.

Four other eggs came to maturity at subsequent periods, but from some unknown cause, three of these young birds died soon after exclusion from the egg, and before they left the mound.

The fourth bird, equally strong and promising as the first, met with an accidental death at about a fortnight old.

The first bird escaped all casualties, and is now as large as its parents.

Being unfortunately a male, there is no immediate prospect of its adding to the present number; but the parent birds are still in perfect health, and exhibit every promise of continuing the interesting experiment of last year, with, it is to be hoped, a more extended success.

Should this prove to be the case, the singular and important fact of the required temperature for hatching being attainable in this climate, having been satisfactorily demonstrated, there is little room to doubt that this bird may be ultimately established in this country; if not wild, at all events in a semi-domesticated and artificial state.

The flesh of the *Talegalla* is stated by Mr. Gould to be of admirable quality, and it is evident from the number of eggs deposited last year, that their rate of increase is at least equal to that of ordinary game birds.

The experiment which is this season to be repeated with the *Talegallas*, will also be tried with the pair of *Leipoas* obtained last year, and there is some probability that the attention which will be given to the slightly different conditions required by this species will be as successful as in the former case.

3. IMPEYAN PHEASANT. *Lophophorus refulgens*.

Six eggs laid by this noble species, in the Collection of Her Majesty the Queen, at Buckingham Palace, having been entrusted to the Superintendent, were placed by him under a Bantam, and two birds hatched out successfully.

These birds were allowed to run at large during the summer in a part of the Garden to which the public were not admitted; were successfully reared; lived during the winter in a very slight shed, having access to the open air every day, even while snow was on the ground; and were finally removed to Her Majesty's possession in the most beautiful health and vigour about the middle of the current month.

As these birds are the produce of birds formerly bred and reared at Knowsley, under the same management, and as they evince every prospect of perpetuation, there can be no doubt that, under ordinarily favourable circumstances, this, the most brilliant of the indigenous Game Birds of the temperate zone of the Himalayas, may be certainly established in Europe.

And, analogically, we cannot refuse our assent to the conclusion that all the Gallinaceæ of that region may be acclimated here in the same manner, if a sufficient number of pairs are imported in the first instance.

4. JAPAN PHEASANT. *Phasianus versicolor*.

From a pair of this species bred at Knowsley in 1850, the produce of a pure imported male, and a hybrid female of three-quarters blood, ten birds have been reared, six males and four females.

These birds have every character of the pure species; and they are perfectly hardy, having passed the winter under the same conditions as the Impeyan Pheasants.

The whole of the females having already commenced laying, there is no doubt that this species also will be effectually perpetuated, and may now be considered ready to be set at liberty in any suitable locality where they will be secure for a certain period from admixture with the common species.

As this has already been done on more than one estate with the true *Ph. torquatus**, of which the Society imported, bred, and disposed of, the birds which originated

* *Ph. torquatus* was bred at Knowsley in 1845, but not established, in consequence of an insufficient supply of imported hens.

the present collections in England, there can be no doubt that the whole six species of the genus *Phasianus* may be treated in the same manner as soon as a sufficient number of pairs can be obtained.

The number of SPECIES OF VERTEBRATE ANIMALS at present possessed by the Society is upwards of 500, exclusive of Fish, Zoophytes, and Mollusca, of which alone upwards of 300 species have been exhibited since the opening of the Aquavivarium.

MAMMALIA.

	Species.
Quadrumana	24
Carnivora	58
Ruminants	32
Pachyderms	10
Edentata and Rodentia . .	19
Marsupiata	10
	—153

BIRDS.

Raptores	48
Insessores	74
Scansores	73
Columbæ and Rasores . .	55
Grallatores	37
Natatores	55
	—342

REPTILES 50

These are represented by an aggregate number of 1145 specimens.

The Collection of Fish, Zoophytes, and Mollusca, has fully maintained the interest which it excited from the first.

The numerical extent of this collection continues to be as great as the size of the tanks will admit; and the perfect success of the system pursued with the animals is satisfactorily demonstrated by the fact, that several specimens are still existing which were originally placed there, and that many of the Zoophytes are reproducing in great numbers. The various stages through which some of these forms pass to their final development, are thus subjected to observation in the most interesting manner, and an accurate record of the result will be kept by means of drawings made with the assistance of the microscope by Mr. Jennens.

The most recent addition to the Aquavivarium is a beautiful little group of young Salmon, about ten days old, presented by Lord Ranelagh.

The general success of the Collection in a sanitary point of view, is illustrated by the following

LIST OF MAMMALIA AND BIRDS

Bred between April 29, 1854, and April 29, 1855.

Rhesus Monkey. <i>Macacus rhesus.</i>	India.
Vervet Monkey. <i>Cercopithecus pygerythrus.</i>	Africa.
Wolf. <i>Canis lupus.</i>	Spain.
Badger. <i>Meles taxus.</i>	England.
Sambur Deer. <i>Cervus hippelaphus.</i>	India.
Axis Deer. <i>Cervus axis.</i>	India.
Javan Deer. <i>Cervus rusa.</i>	Java.
Eland Antelope. <i>Boselaphus oreas.</i>	S. Africa.
Duiker Bok. <i>Cephalophus mergens.</i>	S. Africa.
Gazelle. <i>Gazella dorcas.</i>	N. Africa.
Nylghau. <i>Portax picta.</i>	India.
Nubian Ibex. <i>Capra nubiana.</i>	Egypt.
Aoudad. <i>Ovis tragelaphus.</i>	Abyssinia.
Llama. <i>Auchenia llama.</i>	Peru.
Armadillo. <i>Dasypus sexcinctus.</i>	Brazil.
Rat Kangaroo. <i>Hypsiprymnus murinus.</i>	Australia.
Turquoise Parrakeet. <i>Euphema pulchella.</i>	Australia.
American Robin. <i>Turdus migratorius.</i>	N. America.
Senegal Dove. <i>Turtur senegalensis.</i>	W. Africa.
Naked-eyed Dove. <i>Columba gymnophthalmos.</i>	
Crested Dove. <i>Ocyphaps lophotes.</i>	Australia.
Zenaida Dove. <i>Zenaida amabilis.</i>	W. Indies.
Crowned Pigeon. <i>Goura coronata.</i>	Indian Archipelago.
Brush Turkey. <i>Talegalla Lathamii.</i>	Australia.
Curassow. <i>Crax alector.</i>	S. America.
Sandwich Island Goose. <i>Bernicla sandvicensis.</i>	Sandwich Isles.
Magellanic Goose. <i>Bernicla magellanica.</i>	S. America.
Dusky Duck. <i>Anas obscura.</i>	N. America.
Gadwall. <i>Anas strepera.</i>	England.
Shoveller. <i>Spatula clypeata.</i>	England.
Teal. <i>Querquedula crecca.</i>	England.
Bahama Pintail. <i>Dafila bahamensis.</i>	W. Indies.

Carolina Duck.	<i>Aix sponsa.</i>	N. America.
Mandarin Duck.	<i>Aix galericulata.</i>	China.
Castaneous Duck.	<i>Nyroca leucophthalma.</i>	England.

The most important addition made to the Collection in 1854, was undoubtedly the female Hippopotamus: she arrived safely on the 22nd of July, and was then apparently about twelve months old. She has continued to grow as rapidly as the male when at the same age, and has never had a day's illness.

Among the promises of future additions, the Council have the pleasure to report that they have received intelligence of a fine collection of the animals of South Australia, which has been formed for the Society by Mr. Ayshford Sandford, Colonial Secretary there.

The Vertebrata actually new to the Menagerie which have been received during the last year, are enumerated in the following

LIST OF SPECIES EXHIBITED FOR THE FIRST TIME
BETWEEN APRIL 29, 1854, AND APRIL 29, 1855.

MAMMALIA.

Rosalia Monkey.	<i>Midas rosalia.</i>	S. America.
Wolverine.	<i>Gulo luscus.</i>	Scandinavia.
Circassian Bear.	<i>Ursus</i> —?	Circassia.
Lapland Hare?	<i>Lepus canescens.</i>	Tornea.
Wild Sheep.	<i>Ovis vignei.</i>	Punjab.
Earless Sheep.	<i>Ovis aries</i> , var.	Shanghai.
Anteater.	<i>Cyclothurus didactylus.</i>	Brazil.

BIRDS.

Black-billed Parrakeet.	<i>Palæornis melanorhynchus.</i>	
Larkheel Bunting.	<i>Plectrophanes lapponica.</i>	N. Europe.
Indian Hawfinch.	<i>Coccothraustes melanoxanthus.</i>	India.
Bulbul.	<i>Pycnonotus leucotis.</i>	Kurrachee.
Andalusian Quail.	<i>Turnix tridactyla.</i>	Spain.
Grouse.	<i>Lagopus saliceti.</i>	N. America.
Ruffed Grouse.	<i>Bonasia umbellus.</i>	N. America.
American Pelican.	<i>Pelecanus fuscus.</i>	N. America.

REPTILES.

Sand Lizard.	<i>Varanus maculatus.</i>	
Iguana.	<i>Iguana</i> —?	
Gaboon Cerastes.	<i>Cerastes gabonicus.</i>	W. Africa.
Amphiuma.	<i>Amphiuma means.</i>	S. Carolina.

LIST OF DONORS TO THE MENAGERIE.

HIS MAJESTY THE KING OF PORTUGAL.

One Boa Constrictor, Two Collared Peccarys.

20 HIS HIGHNESS THE LATE PASHA OF EGYPT.

One Hippopotamus (female), One Dog-faced Baboon, One Grivet Monkey, One Abyssinian Genet.

HIS ROYAL HIGHNESS THE PRINCE OF WALES, and HIS ROYAL HIGHNESS THE PRINCE ALFRED.

Eighteen Medusæ.

Lady Graham.

One Mexican Deer.

Capt. Sir Edward Belcher, R.N., F.Z.S.

One Esquimaux Dog.

Maj.-Gen. Hearsey, C.B.

One Mountain Sheep.

Lady Eleanor Cathcart.

One Leadbeater's Cockatoo, One Red-shouldered Parrakeet.

The Countess of Desart.

One Egyptian Goose.

Sir Charles Lemon, Bart., F.Z.S.

Two White-eyebrowed Guans, One Jacapemba Guan.

Sir Edward Buxton, Bart.

Two Hybrids between Common Fowl and Pheasant.

The Hon. T. L. Powys, F.Z.S.

One Night Heron.

The Hon. Lady Hill.

Two Marmozets.

William G. Smith, Esq.

Two Black Bears (young), Six Red Foxes, Two Arctic Foxes, Two Silver Foxes, One White-headed Eagle, Three American Eagle Owls, One Ruffed Grouse.

L. H. Cumberbatch, Esq.

One Red Deer, One Common Otter.

J. Marston, Esq., F.Z.S.

One Grey Ichneumon.

William Rainger, Esq., F.Z.S.

One Kanchil Musk Deer, One Mauge's Opossum.

H. Wright, Esq.

One Grey Ichneumon.

Admiral Moeresby.

Two Guanacos.

Lieut. Evans, 73rd Regt.

One Black-backed Jackal.

H. J. Jackson, Esq.

One Jackal.

Capt. G. F. Day, R.N.

One Jaguar (young female).

Richard Green, Esq.

One Young Emu.

J. Hellers, Esq.

One Red Coati Mondí.

Charles White, Esq.

One Ocelot.

20 F. W. Vowe, Esq.	<i>One Young Lioness.</i>
John Wolley, Jun., Esq., F.Z.S.	<i>One Lapland Hare.</i>
J. Hopension, Esq.	<i>One Ocelot.</i>
W. H. Rosser, Esq.	<i>One Young Beaver.</i>
Samuel Gurney, Jun., Esq., F.Z.S.	<i>One Esquimaux Dog.</i>
H. R. Corbett, Esq.	<i>One Young Beaver.</i>
W. J. Jackson, Esq.	<i>One Chamæleon.</i>
J. Gravell, Esq.	<i>One Chamæleon.</i>
Thomas Bell, Esq., F.R.S., F.Z.S.	<i>One Agouti.</i>
Officers of the 71st Regiment of Highlanders.	<i>One American Black Bear.</i>
Capt. Whitby.	<i>One small Female Zebu.</i>
Capt. Patterson, 2nd W.I. Regiment.	<i>One Ocelot.</i>
J. A. Wright, Esq.	<i>One Common Agouti.</i>
H. Brooks, Esq.	<i>One Macaque Monkey.</i>
Captain Abbott.	<i>One Spider Monkey, One Pelican, Three Iguanas, Seven Wall Lizards.</i>
Capt. Sutherland.	<i>One Capuchin Monkey.</i>
Mrs. Jenkins.	<i>One Pluto Monkey.</i>
J. M'Swiney, Esq.	<i>One Squirrel Monkey.</i>
J. P. Seare, Esq.	<i>One Macaque Monkey.</i>
T. H. Hughes, Esq.	<i>One Diana Monkey, One Lunulated Monkey.</i>
Mrs. Scott.	<i>One Vervet Monkey.</i>
Richard L. Henry, Esq.	<i>One Capuchin Monkey.</i>
Capt. Barnett.	<i>One Rhesus Monkey.</i>
Mrs. Robinson.	<i>One Bonneted Monkey.</i>
W. A. Spence, Esq.	<i>One Macaque Monkey.</i>
Lieut.-Colonel George.	<i>One Toque Monkey.</i>
J. L. Thomas, Esq.	<i>One Pinche Monkey.</i>
Isaac Webb, Esq.	<i>Two Vervet Monkeys.</i>
— Thorn, Esq.	<i>One Raccoon.</i>
Dr. Mungo Park.	<i>Two Chamæleons.</i>
J. S. George, Esq.	<i>One Iguana.</i>
A. Spielmann, Esq.	<i>One Iguana.</i>
Mrs. Pett.	<i>Six Barbary Mice.</i>
B. Lancaster, Esq., F.Z.S.	<i>One Persian Cat.</i>
James Plummer, Esq.	<i>One Flamingo.</i>
Capt. Somerfield.	<i>One Curassow.</i>
Capt. Scanlan.	<i>One Globose Curassow, One Blue and Yellow Maccaw.</i>

- J. R. Thomson, Esq. *One Stanley Crane.*
 John Trench, Esq. *Two Solstitial Parrakeets.*
 Mrs. Stuckey. *One Ring-necked Parrakeet.*
 Miss Turland. *One White-fronted Parrot.*
 Miss Calvert. *One Guinea Parrakeet.*
 Miss Frances Jones. *One Bates' Dove.*
 S. M. Wilson, Esq. *One Pigmy Phalanger.*
 Mrs. Toovey. *One South American Love Bird.*
 George Crawley, Esq. *One Capercaillie.*
 Hugh Owen, Esq. *Two Salamanders.*
 John Gould, Esq., F.R.S., F.Z.S. *One Larkspur Bunting, Two Red-
 poles, One Kestrel Falcon.*

 J. D. J. Carbis, Esq. *Two Andalusian Quails.*
 Edward Browne, Esq. *One Common Bittern.*
 Mrs. Abbott. *Four West Indian Doves.*
 S. W. Hurrell, Esq., F.Z.S. *Three Red Grouse.*
 W. C. Domvile, Esq., F.Z.S. *Two Land Rails.*
 John Fletcher, Esq. *One Little Bittern.*
 Mrs. Danger. *One Barbary Partridge.*
 Colonel Temple. *One Egyptian Goose.*
 Mrs. S. C. Hall. *Two Red-bill Whistling Ducks, One
 Bulbul.*

 Mr. Spillisbury. *Two Shieldrakes, Two Wigeon.*
 — Martin, Esq. *Two Bean Geese, Two Cross-bred
 Geese.*

 Miss Meadows. *One Brown Owl.*
 Mrs. Marriell. *Two Peregrine Falcons, One Herring
 Gull.*

 H. C. Sturt, Esq., F.Z.S. *One Peregrine Falcon.*
 P. G. Heyworth, Esq. *One King Vulture.*
 Mr. Nicholson. *One Kestrel Falcon.*
 Richard Emery, Esq. *Two Ortolan Buntings.*
 Mrs. Foakes. *Four Clapperton Francolins.*
 John Taylor, Esq. *Two Tarantula Spiders.*
 F. Buxton, Esq. *Two Slow Worms.*
 T. Higgin, Esq. *Three Horned Lizards.*
 Dr. Campbell. *Three Chicken Snakes, One Croco-
 dile, Two Water Tortoises.*

 C. D'O. Tweedy, Esq. *One Chicken Snake, One Speckled Snake.*
 A. Russell, Esq., F.Z.S. *Two Green Lizards.*
 E. W. H. Holdsworth, Esq., F.Z.S. *One Ocellated Lizard, Nine Palmated
 Water Lizards, Three Actinia
 crassicornis, One Anthea cereus.*

- J. Wolf, Esq. *One Wood Lark.*
 The Hon. and Rev. S. G. Osborne. *A Collection of Marine Animals.*
 Plowden C. J. Weston, Esq. *One Amphiuma means, Four Sirens.*
 J. Wood, Esq. *Four Water Lizards.*
 J. S. Bowerbank, Esq., F.Z.S. *Twenty-four Freshwater Mussels.*
 A. Dalrymple, Esq. *Forty-two Sabellas, Eleven Actinias.*
 F. Peake, Esq., F.Z.S. *Nineteen Sticklebacks, Twenty-seven Stone Loach, One Gudgeon, Twenty Minnows, Four Miller's Thumbs.*
 C. Wentworth Dilke, Esq., F.Z.S. *One Butterfly Fish, One Smelt, Eleven Cottus, Two Gobies, Two Crabs.*
 G. Nevile, Esq., F.Z.S. *Ten Loach.*
 J. H. Pepper, Esq. *Eighteen Actinias, Nine Cray Fish, Mussels, Pholas, and Sponge.*
 John Goddard, Esq. *Fifty Actinia crassicornis, Nine Actinia bellis, One Anthea cereus.*
 G. Ransome, Esq., F.Z.S. *One Barbel.*
 J. S. Gaskoin, Esq., F.Z.S. *Four Sea Mice.*

Conclusion.

In concluding their Report, the Council desire to express their cordial thanks to the *Committees of Audit, Finance, and Publication*, for the services which they have respectively rendered in respect to the various branches of business which are referred to them.

They have to congratulate the Society on the continuance of public interest in their operations, on the highly effective state of their Establishment, and the prospect which exists of that efficiency being now maintained at a cost for which the current income of the Society will hereafter be sufficient.

REPORT
OF THE
AUDITORS OF THE ACCOUNTS,

Appointed January 4, 1855.

THE Committee of Auditors having carefully examined the Accounts of the Society for the year ending December 31, 1854, and having inspected all the Books and seen Vouchers for all the Payments, now beg to lay before the Society the following Abstract of such Accounts, together with a Statement of the Assets and Liabilities of the Society, and a Report thereon.

RECEIPTS.

				£.	s.	d.	
Balance of Cash brought from Dec. 31, 1853.....				667	6	1	
INCOME.							
Belonging to years		£.	s.	d.	£.	s.	d.
1850	{ Annual Subscriptions	20	0	0			
to	{ Transactions	3	5	0			
1852	{ Proceedings	13	10	0			
					36	15	0
	{ Admission Fees	65	0	0			
	{ Annual Subscriptions	91	0	0			
1853	{ Ivory Tickets	4	4	0			
	{ Transactions	3	6	0			
	{ Proceedings.....	7	18	6			
	{ Garden Sales	74	2	0			
					245	10	6
	{ Admissions to Gardens	10798	19	6			
	{ Garden Sales	930	7	3			
	{ Rent for Refreshment Room	400	0	0			
	{ Admission Fees	525	0	0			
	{ Compositions	900	0	0			
1854	{ Annual Subscriptions	2667	12	0			
	{ Ivory Tickets	129	5	0			
	{ Transactions	22	2	0			
	{ Proceedings	71	10	9			
	{ Dividends	143	8	9			
	{ Donation	5	0	0			
					16,593	5	3
1855	{ Annual Subscriptions (anticipated) ...	22	0	0			
	{ Ivory Tickets (ditto).....	1	1	0			
					23	1	0
1856	—Annual Subscription (anticipated).....				3	0	0
INCOME IN 1854.....				£16,901	11	9	16,901 11 9
Proceeds of Sale of £2000 3 per Cents. Reduced							1,840 0 0
							£19,408 17 10

PAYMENTS.

		Gardens.			Museum.			General Estabt.			Total.			
EXPENDITURE.		£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	
Belonging to years														
1852-3	{ Rent, Rates, Taxes, &c.	331	13	3	.....			58	19	11	390	13	2
	{ Bills	1643	1	1		7	12	0	207	5	5	1857	18	6
Paid on account of previous years		1974	14	4		7	12	0	266	5	4	2248	11	8
1854 {														
Rent, Rates, Taxes, &c.		298	5	5	.....			116	5	5			
Salaries, Wages, &c.		2264	14	9	.....			889	16	0			
Cost of Animals		1199	15	6										
Carriage of Animals and Keepers' Expenses		725	3	10										
Keepers' Dresses		105	7	1										
Provisions		3609	12	7										
Menagerie Expenses		1307	7	3										
Buildings and Works connected.....		1633	12	9										
Other Works, Repairs, &c.		2577	4	10										
Garden Expenses		792	18	1										
Band Expenses		294	17	6										
Advertisements		169	8	0										
House and Office Expenses.....		68	10	2	.....			144	17	7			
Law Expenses		158	8	10										
Museum Expenses						32	6	0						
Library Expenses						115	12	1						
Stationery, &c.									6	19	10			
Printing (Miscellaneous).....									53	11	0			
Transactions									2	0	0			
Proceedings									219	10	3			
Returned Subscriptions									9	3	0			
Paid on account of the current year		15205	6	7	147	18	1	1442	3	1	16,795	7	9	
EXPENDITURE IN 1854		17180	0	11	155	10	1	1708	8	5	19,043	19	5	
Paid for two Powers of Attorney.....											2	3	0	
Cash at the Banker's, December 31, 1854. {														
General Account								313	6	1				
Petty Cash Account								49	9	4				
											362	15	5	
											£	19,408	17	10

The Assets and Liabilities of the Society on the 31st of December, 1854, were as follow:—

ASSETS.															
	Arrears of				Funded Capital.	Cash.	Total.								
	Previous Years.			Current Year.											
	£.	s.	d.	£.							s.	d.	£.	s.	d.
Cash at Banker's...										362	15	5	362	15	5
Paid for £3000 Reduced 3 per Cents.					2635	2	4						2635	2	4
Annual Subscrip- tions.....	244	0	0	178	0	0							422	0	0
Transactions	21	14	6	0	6	0							22	0	6
Proceedings.....	18	1	0	48	11	6							66	12	6
Ivory Tickets	2	2	0	5	5	0							7	7	0
Garden Sales	3	0	0										3	0	0
	288	17	6	232	2	6	2635	2	4	362	15	5	3518	17	9

LIABILITIES.									
	Debts.								
	£.			s.			d.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.
Bills, &c. estimated at—									
For the Gardens, say	2105	12	8						
— Museum	19	2	2						
— General Establishment	273	13	2				2398	8	0
Rent, Rates, &c. unpaid—									
For the Gardens	334	13	2						
— General Establishment	101	15	10				436	9	0
							£2834	17	0

The first impression arising from an examination of the accounts of the Society for the present year is one of regret that it has been found necessary to reduce the funded capital by a sale of £2000 Stock, but upon closer consideration the result will be gratifying, as the Expenditure is, to a certain extent, within the control of the Society, whereas the branch of Income which we have most reason to fear to be of a fluctuating nature, and from which the largest amount is usually received, namely, the Admission-money taken at the Garden Gates, has not fallen off to an extent at all approaching what might have been expected, considering the many discouraging public afflictions which have characterized the past season, the amount received being £10,798 19s. 6d., which presents a decrease of only £544 2s. 0d., as compared with the receipts of 1853, and the large increase of £2869 16s. 0d., as compared with the receipts of 1852.

The amount of Income received from Annual Subscriptions being £2803 12s. 0d., presents an increase of £239 3s. 0d., when compared with 1853; and the Admission Fees have also increased by £160, and the Compositions by £380.

On the other hand, the Expenditure has increased also. The cost of Provisions has been greater by £778 18s. 10d. than in the preceding year; an excess which the rise of prices has rendered unavoidable.

The Salaries and Wages present an increase of £419 4s. 2d., the principal cause of which is to be found in the sum of £282, which the Council considered it desirable to give to the Servants in the Menagerie in the shape of Gratuities, as a compensation for the present increased value of labour.

The most considerable item of Expenditure still remains, as in many former years, charged to Buildings, Works and Repairs, the total of which in 1854 amounts to £4210 17s. 7d. £2903 15s. 10d. was spent under these heads in 1853, and £14,957 5s. 7d. during the three preceding years; making a total since 1850 of £22,071 19s. 0d.

The Committee congratulate the Fellows that there now appears some hope that these large and continued expenses have placed the Buildings, necessary for the proper exhibition and preservation of the Collection, in such a state of efficiency as to enable the Society to meet its current expenses out of its current receipts; and this hope is further strengthened by a resolution of the Council dated Nov. 1, 1854, "That no Buildings or Extraordinary Works should be undertaken before August next, when the state of the Income for 1855 would be known, and the money recently sold out be re-invested in the Funds."

The Committee therefore have reason in stating, that on a careful examination, the affairs of the Society leave much cause for satisfaction, seeing that the uncertain and uncontrollable sources of Income have proved so elastic, and that the branches of Expenditure which it is quite possible to control and determine exactly, namely that for Buildings and Works, appear to have been placed in a position which will admit of their reduction, for the present, to little more than the cost of preservation, an expense which the improved and solid nature of the existing Buildings leaves just grounds to hope will not be large.

The Cash Assets of the Society present a decrease of £2142 7s. 8d.; and the Liabilities an increase of £829 6s. 4d.

The prospects of the Society for the present year present an encouraging aspect, judging by the favour which they last season enjoyed, when, under the most unfavourable circumstances, 407,676 persons visited the Gardens.

The increase in the number of Fellows is also a proof of the public estimation of the permanent attractions of the Society, and therefore the Committee confidently anticipate, that, with due economy, the affairs of the Society will present a much improved aspect at the next audit.

As usual, they have to notice the exact manner in which

Mr. Leigh, the Accountant, has kept and prepared the accounts, and they have to acknowledge his readiness on every point which, during the progress of the audit, required his attention or elucidation.

LIONEL BOOTH.
WILLIAM MARTYN.
JOHN TOMES.
JOHN VAN VOORST.
CLEMENT GEORGE.
A. PEYTON PHELPS.

11 *Hanover Square*, April 16, 1855.