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# REPORT

OF THE

# COUNCIL

OF THE

# ZOOLOGICAL SOCIETY

OF LONDON,

FOR THE YEAR 1879.

READ AT THE ANNUAL GENERAL MEETING,

APRIL 29тн, 1880.

LONDON:

PRINTED BY TAYLOR AND FRANCIS,

RED LION COURT, FLEET STREET

1880.

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# REPORT OF THE COUNCIL.

April 29, 1880.

The Council have the pleasure of submitting for the approbation of the Fellows their fifty-first Annual Report

upon the progress of the Society.

This, in accordance with previous Reports, is divided into three heads, the first of which relates to the General Condition of the Society and its Finances, the second to the business transacted at the Office in Hanover Square, and the last to the state of the Gardens in the Regent's Park.

### I. GENERAL CONDITION OF THE SOCIETY.

## 1. STATE OF THE ROLL OF MEMBERS.

### a. Fellows.

The number of Fellows and Fellows Elect at the close of the year 1879 amounted to 3364. Of these there were:—

Compounders who have paid £20		71
Ditto ditto £30		849
Compositions remitted		19
Paying annual contributions of £2		60
Ditto ditto £3		
Dormant		
Admission-fees unpaid		26
		-
		3364

The state of the Society during the past Ten years, as regards the number of its Ordinary Members, is given in the subjoined Table.

Comparative Statement of Elections, Deaths, Resignations, and Removals during the past Ten years, with the number of Fellows at the end of each Year.

	or ted.			Died.			F	Resigne	d.	R	emove	d.	pe .	of 8, 31.
Years.	ted o	Cor	npound	ders.	Subsc	ribers.	Subsc	ribers.	ssion es aid.	Subsc	ribers.	Fees paid.	sased to Fellows.	Number of Fellows, December 31
	Elected or Re-admitted	£20.	£30.	Fee re- mitted	£2.	£3.	£2.	£3.	Admission Fees Unpaid.	£2.	£3.	Admission Fees Unpaid.	Ceased	Nun F. Dece
1870.	160	9	7		6	32		51					105	3021
1871.	163	4	8		10	38	1	48		2	26		137	3047
1872.	185	5	7	2	11	38	2	40	1		62	14	182	3050
1873.	216	5	7		6	38		34			2	1	93	3173
1874.	221	7	6	1	8	60	***	33			74	8	197	3197
1875.	180	8	16		8	57		36				11	136	3241
1876.	224	9	28		4	63		49	1		***		154	3311
1877.	228	3	23		. 9	63		20			58	6	182	3358
1878.	176	6	12		5	52	1	40	1			1	118	3416
1879.	145	9	17		7	46		54			50	6	189	3364

A slight decrease in the total number of Members is thus shown after a long period of increase. This is attributable, in the first place, to the number of new Members elected in 1879 having been rather less than the average (145 against 176 in 1878), and, secondly, to the number of resignations and removals for non-payment of subscriptions having been rather greater than usual.

The Council believe that this temporary check in the Society's progress is solely attributable to the effects of the general depression that universally prevailed during

the past year.

# b. Corresponding, Foreign, and Honorary Members.

Thirteen Corresponding Members were elected during 1879, namely:—

Dr. John Dean Caton, of Ottawa, Illinois, U.S.A.

Frederick E. Cobb, Esq., Colonial Manager of the Falkland Islands Company, Stanley, Falkland Islands.

W. A. Conklin, Esq., Director of the Central Park Menagerie, New York, U.S.A.

John Colman, Esq., of St. Paul de Loanda, Angola, West Africa.

George Dundas, Esq., C.M.G., St. Vincent, West Indies. Theodore Hance, Esq., of Chinkiang, China.

William Hume Hart, Esq., Colonial Surgeon, Sierra Leone.

Dr. J. Huntly, of the Indian Telegraph Office, Bushire, Persian Gulf.

Capt. George C. Musters, R.N., H.B.M. Consul, Mozambique.

Harry Pryer, Esq., of Yokohama, Japan.

Louis Schwendler, Esq., Superintendent Electrician to the Government of India, Calcutta.

George A. Shaw, Esq., of Betsileo, Madagascar.

Professor J. B. Steere, of the University of Michigan, Ann Arbor, Michigan, U.S.A.

Three Foreign Members were elected to fill vacancies during the same period, namely:—

Prof. Carl Gegenbaur, of Heidelberg.

Prof. Johannes Japetus Smith Steenstrup, of Copenhagen. Dr. Alexander Strauch, Director of the Imperial Museum, St. Petersburg.

One Honorary Member only was elected in 1879, namely:—

His Excellency The Right Hon. Edward Robert, Lord Lytton, G.C.B., Governor-General of India.

## 2. STATE OF THE FINANCES.

### a. Income.

As might have been anticipated, looking to the universal depression in all matters of business which continued to prevail during the greater part of 1879, and which has been already alluded to as affecting the number of new Members elected, and to the rainy weather, which interfered with the Garden-receipts, the Income of the Society for the past year again shows a decrease, although not one of a serious character. The total Receipts for 1879 were £26,463 3s. 6d., against a corresponding sum of £27,944 The difference (£1481 3s. 5d.) is 6s. 11d. for 1878. mainly due to the falling off in the Garden-receipts, which were less by £1300 19s. in 1879 than in 1878. But the Council have no reason to believe that this decrease is to be regarded otherwise than as of a temporary character, entirely attributable to the cause above mentioned. That this is the case is fully evidenced by the more favourable

state of the Garden-receipts during the first months of the present year.

The subjoined Table gives a comparison of the various heads of Income for 1879, with the corresponding amounts for the previous year:—

	18	78.		18	79.		Increase.	Decr	eas	е.
Admission Fees:-	£	8.	d.	£	8.	d.	£ s. d.	£	8.	d
Past	110	0	0	110	0	0				
Present	705			585		0		120	0	0
Annual Subscriptions:-		- 15		2000	- 7	200		222	-	- 15
Past	33	0	0	66	0	0	33 0 0			
Present				and the second second		0		69	16	0
Future		0	0	78	0	0				0
Compositions		700			0	0	60 0 0			
Ivory Tickets		13		600		0	00 0 0	23	3	(
Admissions to Gardens	18.516	6				0		1,300		Ö
Garden Sales	746			401		8				-
Rent for Refreshment-rooms	963	8	4			8	259 13 4	344	10	
Rent for Premises in Oxford	900	0	4	1,223	1	0	209 10 4			***
Street	300	0	0	300	0	0				
Publications	887	18	0	881	8	9		6	9	5
Dividends	64		11	100000000000000000000000000000000000000	8	4	9 9 5			
Miscellaneous	11		5	36	9	1	24 17 8			
	27,944	6	11	26,463	3	6	387 0 5	1,868	3	10
Decrease						5				5
	27,944	6	11	27,944	6	11		1,481	3	-5

Adding to the Income of 1879 the balance (£754 14s. 11d.) carried forward from 1878, we find the total amount of £27,217 18s. 5d. available for the expenditure of the year.

## b. Expenditure.

This amount was disposed of in the following manner:—
The sum of £23,908 6s. 1d. was required for the ordinary expenditure of the year. The extraordinary expenditure during the same period amounted to £1238 11s. 1d.
The sum of £1000 was paid to Messrs. Drummond on account of their mortgage on the Society's House and Premises. This left a balance at the Society's Bankers, on the 31st of December last, of £1071 1s. 3d., which was carried forward for the benefit of the present year.

The subjoined Table gives the various items of expenditure of 1879, and a comparison of each of them with the corresponding amount paid in 1878:—

		Exp	pen	diture	of		Increase.	Decrease	
	18	78.		18	79.		Increase.	Decrease	
Arrears of previous years	. 3,710	3				$\frac{d}{2}$	£ 8. d.	£ s. 1,442 14	d.
Rent, Rates, Taxes, and Insurance	942			985		7	43 4 5		
Salaries, Wages, and Pensions Cost and Carriage of Animals	5,501			5,106 1,349		6 2	341 2 5	394 19	8
Provisions	4,249	13	2	4,180	8	3		69 4	11
Menagérie Expenses Keepers' Dresses	2,612 137		9	2,785 141		8	172 14 11 4 16 6		
Works, Repairs, and Materials .	2,622		5	2,892	11	3	269 15 10		
BuildingsGarden Expenses	956 852		1	200 843	6	9		756 9 9 10	5
Band Expenses	224		3	221		0		3 10	3
Advertisements House and Office Expenses	161 564	2	7 8	229 601	0	7	67 18 7 36 17 11		
Stationery and Account Books	63	0	9	62		2		0 3	2020
Printing (Miscellaneous) Publications	2,397		9	391 2,044	17	7		26 16 352 7	9 2
Library Expenses	281 43		0	322 43	8	0	40 12 0	• • • • • • • • • • • • • • • • • • • •	
Returned Subscriptions			6	4			0 6 0	10 11	6
Grant in aid of Science	50	19	0 11	50 74	0 8	0	0 0 5		
Expenditure of Davis Bequest Interest on Mortgage Debt	392		9	and the latest terminal	10	0	9 9 5	40 8	9
Decrease	27,266	15	9	25,146 2,119		2 7	986 18 0 Ded. Incr.	3,106 <b>16</b> 986 18	7
	27,266	15	9	27,266	15	9	***************************************	2,119 18	7
Ordinary Expenditure Extraordinary ditto	25,048 2,218			23,908 1,238		-		1,139 15 980 3	5 2
	27,266	15	9	25,146	17	2		2,119 18	7

It will be observed that the decrease of expenditure effected in 1879 amounted altogether to £2119 18s. 7d., being a sum considerably in excess of the falling off in the Income (£1481 3s. 5d.). Of this decrease, £1139 15s. 5d. took place in the ordinary expenditure, and £980 3s. 2d. in the extraordinary expenditure of the Society. The extraordinary expenditure consisting mainly of the sums devoted to new works and buildings and to other special undertakings, is of course completely under control; but it is more difficult to reduce the ordinary charges for keeping up the Society's large establishment; and the Council trust that the economies effected in this department, without, as they believe, any material sacrifice of efficiency, will be satisfactory to the Fellows.

The Extraordinary Expenditure paid in 1879 consisted of the following items:—

Buildings:	£	s.	d.
Raising House at Hanover Square an additional story (on account)	200	0	0
Works in the Gardens: £ s. d.			
Iron Work-shed			
Slip on Canal-bank			
Insectorium			
Walks &c. adjoining	758	9	2
Scientific Publications:			
'List of Animals,' 7th edition	230	1	11
Grant in aid of Zoological Science:			
Zoological-Record Association	50	0	0
#	21238	11	1
=			_

References will be made to these items in subsequent portions of the Report.

### c. Assets and Liabilities.

The Assets and Liabilities of the Society on the 31st of December 1879 were as follow:—

442				1	AS	SE	TS.											
	111	Aı	rea	rs of			Freehold and Funded											
		viou ears.		Cu	rren ear.	t	Prop			C	ash.		Tot	al.				
Cash at the Banker's	£	s.	d.	£	8.	d.	£	s.	d.	£ 1071	s. 1	$\frac{d}{3}$	£ 1,071	s. 1	$\frac{d}{3}$			
Davis Trust - fund (invested in South- Western 4 per												240						
Cent. Preference Stock) Freehold Premises							1,938	9	6				1,938 24 205	9	6			
Annual Subscrip-	193	0	0	209	0	0							332	0	0			
Ivory Tickets Publication Sales	9 16	9	6	6 293	6 17	7			<b></b>		••••		15	2	1 2			
Garden Sales Rent for Freehold Premises		18		89 75										0	0			
Trompos					-					-			28,051	15	0			

### LIABILITIES.

	De	bts.		
Bills, &c., estimated at— For the Gardens, say Office, say	£ s. d. 985 11 8 460 14 10	£ 8		
Rent and Taxes unpaid— For the Gardens, say Office, say	155 7 1 17 3 9	172		
Messrs. Drummond, Mortgage Debt  Messrs. Aldin and Sons, Balance of Contracts				0
		9,960	2	4

The amount paid for the freehold of the Society's premises (No. 11 Hanover Square and No.  $314\frac{1}{2}$  Oxford Street) was £22,225. To this amount must be added the value of the lease of the Hanover-Square portion held by the Society, which, at the time of the purchase, was estimated to be £1500, making the total value of the freehold at the date of the purchase £23,725. To this sum, in order to arrive at the total value of the freehold, an addition (of £225) is made annually in respect of the increasing value of the premises in Oxford Street, the lease of which will run out altogether about 2 years hence.

# II. OFFICE, 11 HANOVER SQUARE.

# 1. Extension of Premises.

The pressing want of further accommodation in the Library, which is much resorted to by such members of the Society as are working in different departments of Zoology, has been more than once adverted to in previous Reports. The freehold of the Society's House having been acquired by the Society, there remained no objection to spending money on its improvement. The Council accordingly entered into a contract with Messrs. Aldin and

Sons, in August last, to put a new upper story on the house and make other slight improvements, at a total cost of £541 58. Of this sum £200 was paid last year, and charged to the extraordinary expenditure of 1879, while the remainder has been paid since the commencement of

the present year.

The additional accommodation thus provided has rendered the back room on the second floor available for the use of readers, and has also given ample space for additions to the library in the new large room on the upper story. At the same time the opportunity has been taken of painting and repointing the whole outer front of the Society's Office.

# 2. Scientific Meetings.

To the thirteen meetings for the despatch of scientific business held in the Society's Rooms in Hanover Square in 1879, 144 communications were made. Of these, 100 were from Fellows, 1 from a Foreign Member, and 24 from Corresponding Members of the Society. The remaining 19 papers were from individuals not belonging to the Society, and were communicated to it by the Secretary or by other Members. The corresponding number of communications in the year 1878 was 160.

These communications were submitted to the Committee of Publication, by whom the following orders were made respecting them. Seven were ordered to be printed entire in the 'Transactions' of the Society, and 99 in the 'Proceedings,' such illustrations being in each case allowed as the Committee considered necessary for the purpose. Of the remaining communications, abstracts or extracts were

considered to be sufficient for publication.

# 3. SCIENTIFIC PUBLICATIONS.

The volume of the Society's 'Proceedings' for 1879, which is now on the table, contains 868 pages, illustrated by 64 (mostly coloured) plates.

Four Parts of the Society's 'Transactions' were issued

during the year 1879, namely:-

# Vol. X. Part X. (February, 1879).

Notes on the Fins of Elasmobranchs, with Considerations on the Nature and Homologues of Vertebrate Limbs.

By St. George Mivart, F.R.S., V.P.Z.S. (with six plates and six woodcuts).

Vol. X. Part XI. (February, 1879).

On the Mechanism of the Odontophore in certain Mollusca. By Patrick Geddes (with three coloured plates).

On the Hearts of Ceratodus, Protopterus, and Chimæra, with an Account of undescribed Pocket Valves in the Conus arteriosus of Ceratodus and of Protopterus. By E. Ray Lankester, M.A., F.R.S. (with two plates).

Vol. X. Part XII. (June, 1879).

Observations on the Uraniidæ, a Family of Lepidopterous Insects, with a Synopsis of the Family and a Monograph of *Coronidia*, one of the Genera of which it is composed. By J. O. Westwood, M.A., F.L.S. (with four plates).

Vol. X. Part XIII. (October, 1879).

Supplementary Notes on the Curassows now or lately living in the Society's Gardens. By P. L. Sclater, M.A., Ph.D., F.R.S., Secretary to the Society (with seven coloured Plates).

This Part completes the Tenth Volume of the Society's Quarto 'Transactions,' and with it is given the Contents and Index of the tenth volume.

A new edition of the List of Animals in the Gardens was also prepared and issued in 1879.

Since the commencement of the present year one more part of 'Transactions' has been issued, and three others (containing all the remaining papers ordered for publication in the 'Transactions' up to the end of 1879) are in a forward state.

# 4. LIBRARY.

The Library, under the superintendence of Mr. F. H. Waterhouse, the Society's Librarian, has been kept in good order during the past year, and, now that the additional space so long required has been provided, better accommodation will be given to readers.

The new Library Catalogue is printed and is now ready

for distribution.

The sum of £326 18s. 2d. was devoted to the purchase of new zoological works in 1879.

Some of the most important additions to the Society's Library, purchased since the last anniversary, are the following:—

Anderson's Two Expeditions to Western Yunnan.

Curtis's British Entomology.

Dabry de Thiersant. Pisciculture en Chine.

Eimers. Die Medusen. Entomological Magazine.

Houghton's British Freshwater Fishes.

Hume and Marshall's Game Birds of India, Burmah, and Ceylon.

Keyserling's Die Spinnen Amerikas.

Kobelt's Fauna Molluscorum extramarinorum Japoniæ.

Pfeiffer's Monographia Pneumonopomorum. Pfeiffer's Monographia Heliceorum viventium.

Reeves's Elements of Conchology.

Sowerby's Genera of Recent and Fossil Shells.

Sowerby's Conchological Manual.

Swainson's Selection of the Birds of Brazil and Mexico.

Wilson's Larvæ of the British Lepidoptera.

Wollaston's Insecta Maderensia.

Yarrell's History of British Birds (2nd edition).

The following is a list of the periodicals received in 1879 from the various Societies and Institutions with whom this Society is in correspondence.

### AMERICA.

The Museum of Comparative Zoology, Harvard College, Cambridge, Mass.

> Bulletin, vol. v. nos. 8-16. Annual Report, 1878-79.

The Nova Scotian Institute of Natural Sciences, Halifax.

Proceedings and Transactions, vol. v. part 1.

The Academy of Natural Sciences, Philadelphia. Proceedings, 1879.

The American Philosophical Society, Philadelphia. Proceedings, vol. xviii. no. 102.

The Franklin Institute, Washington. Journal, 1879.

The United States National Museum, Washington. Bulletin, Nos. 7-12.

The United States Geological and Geographical Survey of the Territories, Washington.

Bulletin, vol. v. nos. 1-3.

### AUSTRALASIA.

The Linnean Society of New South Wales, Sydney. Proceedings, vol. iii. parts 2, 3, and 4.

The New-Zealand Institute, Wellington.
Transactions, vol. xi.

#### BELGIUM.

The Entomological Society of Belgium.

Annales, tom. xxi.
Compte-Rendu, 1879.

The Royal Museum of Natural History, Brussels.

Annales, tome ii.

### EAST INDIES.

The Royal Physical Society, Batavia.

Natuurkundig Tijdschrift, deel xxxviii.

The Asiatic Society of Bengal, Calcutta.

Proceedings, 1878, nos. 9 & 10; 1879, nos. 1-9.

Journal, vol. xlvii. nos. 222-224; vol. xlviii. nos. 225-229.

Geological Survey of India, Calcutta.

Memoirs, ser. ii. part 4; ser. iv. part 3; ser. xii. part 1, and ser. xiii. part 1.

Records, vol. xii. parts 1-4.

### FRANCE.

The Museum of Natural History, Paris. Nouvelles Archives, sér. 2, tome i.

The Zoological Society of Acclimatation, Paris. Bulletin, January to December 1879.

The Natural-History Society, Toulouse.

Bulletin, année xii. fasc. 2, 3 (1877-78), année xiii. (1878-79), fasc. 1.

#### GERMANY.

The Royal Prussian Academy of Sciences, Berlin.

Monatsbericht, 1879.

Abhandlungen 1878-79.

- The Society of Friends of Natural History, Berlin. Sitzungsbericht, 1878.
- The Senckenbergian Natural-History Society, Frankfort a. M.
  Bericht, 1878-79.
- The Zoological Society, Frankfort a. M.
  Der Zoologische Garten, Jahr. xx. 1879, 1-6.
- The German Malacological Society, Frankfort a. M. Jahrbücher, 1879, Heft 1-4.
- The Society of Sciences, Göttingen.
  Abhandlungen, Band xxiv.
- The Natural-History Society, Halle.

  Abhandlungen, Band xiv.

  Bericht, Jahr 1877-78.
- The Medical and Natural-History Society, Jena.

  Jenaische Zeitschrift, Band xiii. Heft 1-4 and Supplement.
- The Academy of Metz.

  Mémoires, année 1878-79.
- The Royal Bavarian Academy of Sciences, Munich. Sitzungsberichte, 1878, Heft 4; 1879, Heft 1-3. Abhandlungen, Band xiii. Abh. 2.
- The Imperial Academy of Sciences, Vienna.

  Sitzungsberichte, Band lxxvi. Heft 1-5.

  —, Band lxxvii. Heft 1-5.

  Denkschriften, Band xxxix.

  Register zu den Bänden 65. bis 75.
- The Zoological and Botanical Society, Vienna. Verhandlungen, Bd. xviii. 1879.
- The Union of Natural History, Württemberg.
  Württembergische Jahreshefte, 1878, Heft 4; 1879, Heft 1.

# GREAT BRITAIN AND IRELAND.

- The Royal Geological Society of Ireland, Dublin. Journal, new series, vol. v. part 1.
- Royal Physical Society of Edinburgh. Proceedings, Sessions 1876-78.

- Royal Society of Edinburgh.

  Transactions, vol. xxviii. part 2.
- The Hull Royal Institution, Hull.
  Annual Report, &c., Session 1878-79.
- The Leeds Philosophical and Literary Society, Leeds.
  Annual Report for 1878-79.
- The Literary and Philosophical Society, Liverpool. Proceedings, no. xxxii. Session 1877-78.
- The Royal Society, London.

  Proceedings, vol. xxviii. nos. 192–194; vol. xxix. nos. 197–199.
  Philosophical Transactions, extra vol. clxix. part 2.
  Catalogue of Scientific Papers, vol. viii. 1879.
- The Linnean Society, London.

  Journal (Botany), vol. xvii. nos. 101–103.

   (Zoology), vol. xiv. nos. 78–80.

  Transactions, 2nd ser. (Botany), vol. i. part 6.

  —, 2nd ser. (Zoology), vol. i. part 8.
- The Royal Geographical Society, London.

  Proceedings, vol. i. nos. 1-11.

  Journal, vol. xlviii.
- The Geological Society, London.

  Journal, vol. xxxv. parts 1-4.

  List of Fellows of the Society, 1879.
- The Royal Institution of Great Britain, London.

  Proceedings, vol. viii. part 6; vol. ix. part 1.

  List of Fellows of the Society, 1878.
- The Royal United-Service Institution, London. Journal, nos. 99-103.
- The British Association for the Advancement of Science, London. Report for 1878.
- Royal Asiatic Society of Great Britain and Ireland, London. Journal, New Series, vol. xi.
- The Society of Arts, London. Journal, 1879.

- The Royal Agricultural Society of England, London. Journal, vol. xv. parts 1, 2.
- The Entomological Society, London.
  Transactions, 1878, part 5; 1879, parts 1-4.
- The Quekett Microscopical Club, London. Journal, nos. 39-41.
- The Royal Society of Literature, London. Transactions, 2nd ser. vol. xii. part 1.
- The Public Free Libraries, Manchester. 27th Annual Report, 1878-79.
- The Norfolk and Norwich Naturalists' Society, Norwich.

  Transactions, vol. ii. part 5.
- The Plymouth Institution and Devon and Cornwall Natural-History Society, Plymouth.

  Annual Report and Transactions, vol. vii. part 1.
- The Museum, Library, and Park Committee, Salford. Annual Report, 1877-78; 1878-79.
- The Royal Institution of Cornwall, Truro. Journal, nos. xx., xxi.

## HOLLAND.

- The Royal Academy of Sciences, Amsterdam.

  Verslagen en Mededeelingen (Natuurkunde), tweede reeks,
  deel xii., xiii.; (Letterkunde), tweede reeks, deel vii.

  Jaarboek, 1877.
  Verhandelingen, deel xviii.
- The Dutch Society of Sciences, Haarlem.
  Archives Néerlandaises, tom. xiv. livr. 1-5.
- The Entomological Society of the Netherlands, The Hague. Tijdschrift voor Entomologie, Jaargan 1878-79, afl. 1-4.

## ITALY.

- The Civic Museum of Natural History, Genoa.

  Annali, vol. xiii. (1878).
- The Natural-History Society, Modena.
  Annuario, ser. 2, anno xiii. fasc. 1, 2.

The Royal Academy of the Lincei, Rome.

Transunti, ser. 3, vol. iii. fasc. 1-5.

Memorie, ser. 3, vol. ii.

The Royal Academy of Sciences, Turin.

Atti, vol. xiv.

Memorie, ser. 2. tomo xxx., xxxi.

Bollettino, Anno xiii., 1878.

# PORTUGAL.

The Royal Academy of Sciences, Lisbon. Journal, nos. 24-26 (1878-79).

# RUSSIA.

The Natural-History Society, Dorpat. Sitzungsberichte, Band v. Heft 1.

The Imperial University, Kazan. Bulletin, 1878.

The Imperial Society of Naturalists, Moscow. Bulletin, 1878, nos. 3, 4; 1879, nos. 1, 2.

The Royal Academy of Sciences, St. Petersburg.

Bulletin, tome xxv. nos. 4, 5.

Mémoires, 7e série, tome xxvi. nos. 5-11.

The Entomological Society of Russia, St. Petersburg. Horæ, tome xiv. 1878.

# SCANDINAVIA.

The Royal Danish Society of Sciences, Copenhagen. Oversigt, 1878, no. 2; 1879, no. 1.

The Royal Norwegian University, Christiania.

Forhandlingar, 1876–77.
Enumeratio Insectorum Norvegicorum, fasc. iv.
Bidrag til Kundskaben om Norges Arktiske Fauna. i. Mollusca
regionis arcticæ Norvegiæ.

# SPAIN.

The Spanish Natural-History Society, Madrid.
Anales, tomo viii. cuaderno 1-3.

#### SWITZERLAND.

The Physical and Natural-History Society, Geneva.

Mémoires, tome xxvi. part 2.

The Natural-History Society, St. Gall. Bericht, 1877-78.

The Natural-History Society, Zurich. Vierteljahrsschrift, Jahr. xxiii. 1878.

Donations of Works, Memoirs, and Papers have also been received from: - Professor A. Agassiz; The Editors of the American Naturalist; Professor J. V. Barboza du Bocage; W. T. Blanford, Esq.; The Trustees of the British Museum; Dr. H. Burmeister; Messrs. Cassell, Petter, and Galpin; T. S. Cobbold, Esq.; Monsieur Crosse; Professor James D. Dana; Dr. Anton Dohrn; D. G. Elliot, Esq.; The Museum Godeffroy; Lt.-Col. H. H. Godwin-Austen; H. Goss, Esq.; R. J. L. Guppy, Esq.; Dr. F. V. Hayden; John Hancock, Esq.; Dr. James Hector; The Government of India; The Trustees of the Indian Museum; C. J. Forsyth Major, Esq.; H. C. McCook, Esq.; Monsieur E. Oustalet; Professor Owen; Professor J. Reinhardt; A. M. Ross, Esq.; Alfred Sanders, Esq.; Monsieur H. E. Sauvage; P. L. Sclater, Esq.; H. G. Smith, Esq.; S. Stevens, Esq.; W. B. Tegetmeier, Esq.; Dr. H. Troschel; the University College of London; U.S. Commission of Fish and Fisheries; Professor J. D. Whitney; Dr. R. Wiedersheim; Dr. Julius von Haast; Heer S. C. Snellen van Vollenhoven.

# III. GARDENS, REGENT'S PARK.

# 1. BUILDINGS AND WORKS.

In view of the falling-off of the Society's Income consequent on the general depression so often alluded to, the Council thought it prudent to restrict, as far as possible, the outlay on new buildings in the Society's Gardens in 1879. The amount spent in this way was only £758 9s. 2d., against £1368 14s. 3d. expended in a similar way in 1878. The items making up this amount were as follows:—

New Iron work-shed.  Repairing slip on Canal-b Re-erection of iron-and-g North Gardens	all.		. •	207	8. 0 19	d. 0 11
North Gardens Walks in North Gardens				295 45	2 7	1 2
			1	2758	9	2

A large work-shed for the use of the painters and mechanics in winter and in bad weather has long been a much-needed addition to the Society's establishment. A convenient site for it having been found in the eastern corner of the North Gardens, the Council, in the autumn of 1878, arranged for its erection by Messrs. Main, of Glasgow, at a contract-price of £210 0s. 0d. This amount was paid in 1879 and charged to the extraordinary expenditure of that year. The building has been found to answer the purpose for which it was intended in every way.

The long-continued rains of the summer and autumn of 1879 caused a slip to appear on the north bank of the Canal, at the western extremity of the North Gardens. The Society having agreed with the Regent's Canal Company, when the bridge was built in 1872, to keep the north bank in order, were called upon by the Company to repair this slip. This the Council accordingly proceeded to do by taking out the slipped clay and burning it into ballast, which they considered to be a more economical plan than having the clay carted away, as a large quantity of ballast was required for the new road and paths in this part of the Gardens. After taking out about a third part of the slipped clay, it became evident, from the material which presented itself, that the slip was not a new one, but an old slip that had been imperfectly repaired, and on inquiry it was found that such had been really the case. The Council accordingly gave orders that the repair of the slip should not be further proceeded with, leaving the question open for future arrangement between the Society and the Canal Company, who still maintain the Society's liability.

The expenditure on the repair of the slip in 1879 was £207 19s. 11d., besides which the sum of £45 7s. 2d. was devoted to the new walks and roads in the North

Great progress was also made in 1879 with the reerection, in the North Gardens, near the north entrance, of the iron-and-glass building which formerly served as a second-class refreshment-room. With a slight addition at the back this will make a nice light building, which it is proposed to utilize during the present summer as a receptacle for the birds in the Parrot-house (which requires thorough repair), and afterwards to use either as an Aviary or as an Insectorium. The amount expended under this head in 1879 was £295 2s. 1d.

The Military Band having now become a great attraction during the summer months, it has become advisable to provide a covered Band-stand. Mr. Charles Henry Gatty, of Felbridge Park, East Grinstead, Fellow of the Society, having intimated his wish to provide the necessary funds for this purpose, the Council have had great pleasure in accepting Mr. Gatty's most liberal offer, and a new Bandstand is now in process of erection, as a present from Mr. Gatty to the Society, and will, it is expected, be ready for use before the usual season for the commencement of the Band.

#### 2. STAFF.

The permanent Staff of the Society's Gardens continues nearly the same as at the last Anniversary. It consists of:—

1 Superintendent.

1 Assistant Superintendent.

1 Head Keeper.

4 Keepers (1st class).

9 Keepers (2nd class). 9 Keepers (3rd class).

3 Money-takers.

1 Storekeeper.

1 Cook.

1 Office Clerk.

1 Prosector's Assistant.

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Besides these there are 19 Helpers in the Menagerie, 1 Head Gardener, 10 Garden-labourers, 9 Artisans, 5 Painters, 12 Labourers, 1 Butcher, 1 Fireman, 2 Night-Watchmen, and 1 Timekeeper employed at weekly wages; so that the number of the whole staff may be reckoned at about 93 persons.

# 3. VISITORS.

The total number of visitors to the Society's Gardens during the year 1879 was 643,000, as will be seen by the following Table, which gives the corresponding numbers of entrances under each head for 1878 and 1879:—

Visitors to the Gardens.

	1878.	1879.	Comp	arison.
On ordinary days at 1s. each On Mondays and other days	188,773 158,070	169,737 151,808	Decr. Decr.	19,036 6,262
Children under 12 years at	296,368 48,144	259,931 45,067		36,437
Charity Children	15,358	16,457	Decr.	3,077 1,099
	706,713	643,000	Decr.	63.713

The following Table contains a statement of the Number of Visitors to the Society's Gardens during each year, from the year 1828 to the year 1879.

Number of Visitors to the Gardens, 1828-79.

Year.Number. $1854$ $407,676$ $1855$ $315,002$ $1856$ $344,184$ $1857$ $339,217$ $1858$ $351,580$ $1859$ $364,356$ $1860$ $394,906$
$1854 \dots 407,676$ $1855 \dots 315,002$ $1856 \dots 344,184$ $1857 \dots 339,217$ $1858 \dots 351,580$ $1859 \dots 364,356$
$1855 \dots 315,002$ $1856 \dots 344,184$ $1857 \dots 339,217$ $1858 \dots 351,580$ $1859 \dots 364,356$
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$1857 \dots 339,217$ $1858 \dots 351,580$ $1859 \dots 364,356$
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,555
2000 004,000
1861 381,837
†1862 682,205
1863 468,700
1864 507,169
1865 525,176
1866 527,349
1867 556,214
1868 573,186
1869 572,848
1870 573,004
1871 595,917
1070 010 000
1873 712.040
1874 706,907
1875 699,918
1876 915,764
1877 781,377
1878 706 719
$1878 \dots 706,713$ $1879 \dots 643,000$

It will be observed that, notwithstanding the depression above alluded to, the total number of visitors to the Gardens does not present any serious decrease.

# 4. ZOOLOGICAL LECTURES.

Great interest being taken by many Fellows of the Society in the Zoological Lectures, to which the proceeds of the Davis Trust-fund have been devoted for several years, the Council have determined to continue them during the present season.

The Lectures for this year will be given in the usual Lecture-room in the Society's Gardens, on Thursdays at

5 P.M., commencing June 3rd.

The following is a list of the subjects :-

Date.	Subject.	Lecturer.
2. " ", 10 3. " ", 17 4. " ", 24 5. " July 1	Tadpoles	J. E. Harting, Esq., F.Z.S.

These Lectures will be free to Fellows of the Society and their Friends, and to other Visitors to the Gardens.

# 5. PROSECTOR'S DEPARTMENT.

The loss suffered by the Society, and by Science in general, by the death of their excellent and accomplished Officer, Mr. Alfred Henry Garrod, F.R.S., in October last, is already well known to most of the Members. The Council feel it hardly necessary to repeat the expression of their great regret at this occurrence, as it has already formed the subject of a special communication to the Society at one of its general meetings, and is, they feel assured, fully participated in by every one acquainted with the late Prosector.

To fill the vacancy thus caused in the Prosectorship, the Council have selected, as successor to Mr. Garrod, Mr. William Alexander Forbes, B.A., Scholar of St. John's College, Cambridge. Mr. Forbes, whose name is already well known to many of the Fellows as that of a valuable contributor to the Society's 'Proceedings,' acted as Mr. Garrod's deputy during his absence abroad in the

winter of 1878-79, and is, the Council feel confident, fully competent to discharge the duties of the post with efficiency and success.

### 6. MENAGERIE.

The number of animals belonging to the first three classes of Vertebrates living in the Society's Menagerie at the close of 1879 was 1955. The corresponding number on the 31st of December, 1878, was 2178, as will be seen by the subjoined Table:—

	December 31.		~	
Quadrupeds	1878.	1879.	Comparison.	
	640 1314 224	548 1334 73	Decr. 92 Incr. 20 Decr. 151	
	2178	1955	Decr. 223	

The total number of registered additions to the Menagerie in 1879 was 1266, of which 550 were acquired by presentation, 421 by purchase, 115 were bred in the Gardens, 124 were received on deposit, and 56 obtained in exchange.

The mode in which these figures compare with those of previous years is shown in the subjoined table:—

	Presented.	Purchased.	Born.	Deposited.	Received in Exchange.	Total.
1870.	386	529	160	218	40	1333
1871.	496	434	138	129	90	1287
1872.	460	527	195	110	52	1344
1873.	483	457	191	231	188	1530
1874.	425	296	214	242	25	1202
1875.	559	557	156	143	43	1458
1876.	533	316	171	172	27	1219
1877.	506	324	181	181	68	1260
1878.	511	272	150	178	71	1182
1879.	550	421	115	124	56	1266

The Council call attention with great pleasure to the large and increasing number of presents now received by the Society, the number of animals thus acquired of late years having exceeded those obtained by purchase. This testifies to the great interest taken in the Society's affairs by its friends and correspondents in every part of the world.

It naturally becomes more difficult every year to obtain specimens of animals that have not been previously exhibited. The Council have, however, the pleasure of submitting a systematic list of 12 Mammals, 26 Birds, 10 Reptiles, and 2 Fishes belonging to species new to the Catalogue which were brought to the Society's Gardens in the year 1879.

## MAMMALS.

Mitred Monkey (Semnopithecus mitratus).
Red-faced Saki (Brachyurus rubicundus).
Caffer Wild Cat (Felis caffra).
Rude Fox (Canis rudis).
Bush-Dog (Icticyon venaticus).
Beech-Marten (Martes foina).
Indian Otter (Lutra nair).
Indian Jerboa Rat (Gerbillus indicus).
Brazilian Hare (Lepus brasiliensis).
Japanese Goat Antelope (Capricornis crispus).
White-rumped Roe Deer (Capreolus pygargus).
Mule Deer (Cariacus macrotis).

# BIRDS.

Alpine Accentor (Accentor collaris). Blue-winged Green Bulbul (Phyllornis hardwicki). Crowned Tanager (Tachyphonus coronatus). Saira Tanager (Pyranga saira). Wiener's Finch (Pytelia wieneri). Yellow Bunting (Emberiza citrinella). White-bellied Shore-Lark (Eremophila chrysolæma). Lanceolated Jay-Thrush (Garrulus lanceolatus). Black-headed Jay (Cyanocorax cyanomelas). Purple-crested Touracou (Corythaix porphyreolophus). Spotted-billed Toucanet (Selenidera maculirostris). Funereal Cockatoo (Calyptorhynchus funereus). Horned Parrakeets (Nymphicus cornutus). Golden-headed Conure (Conurus auricapillus). Bodinus's Amazon (Chrysotis bodini). Red-tailed Amazon (Chrysotis erythrura). Blue-cheeked Amazon (Chrysotis cœligena). Golden-fronted Parrakeet (Brotogerys tuipara). Buff-backed Egret (Ardea russata). Variegated Bittern (Ardetta involucris).

Stair's Ground-Dove (Phlogænas stairi).
Elliot's Guinea-fowl (Numida ellioti).
White-spotted Rail (Rallus maculatus).
Sooty Rail (Rallus rhythirhynchus).
Bar-winged Rail (Rallina pæciloptera).
Red-throated Diver (Colymbus septentrionalis).

Amongst these special attention may be called to the beautiful pair of Horned Parrakeets, natives of New Caledonia, and rare, even in the principal Museums. (See frontispiece to Report.)

## REPTILES.

Darwin's Amphisbæna (Amphisbæna darwini).
European Gecko (Phyllodactylus europæus).
Taraguira Lizard (Taraguira smithi).
Wizlizenus's Lizard (Crotaphytus wislizeni).
Spotted Slow-worm (Acontias meleagris).
Coral Snake (Tortrix scytale).
Coppery Snake (Rhinostoma cupreum).
Back-marked Snake (Rhinechis scalaris).
Cobella Snake (Liophis cobella).
Neck-marked Snake (Geoptyas collaris).

### FISHES.

Black Bass (Huro nigricans). American May-fish (Fundulus majalis).

The summer of 1879 was particularly unfavourable for breeding animals. There were nevertheless a considerable number of successful reproductions in the Gardens, as the following list of the animals which were bred in the Gardens in the year 1879 will show:—

# MAMMALS.

- 1 Collared Fruit-Bat (Cynonycteris collaris).
- 3 Common Badgers (Meles taxus).
- 1 Canadian Beaver (Castor canadensis).
- 3 Black Rats (Mus rattus).
- 2 Cuming's Octodons (Octodon cumingi).
- 2 Chinchillas (Chinchilla lanigera).
- 2 Hairy-rumped Agouti (Dasyprocta prymnolopha).
- 1 Zebu (Bos indicus).

1 Cape Buffalo (Bubalus caffer).

1 Eland (Oreas canna).

3 Reeves's Muntjacs (Cervulus reevesi).

1 Hybrid Red Deer (Between Cervus elaphus and C. barbarus).

1 Japanese Deer (Cervus sika).

1 Sambur Deer (Cervus aristotelis).

2 Axis Deer (Cervus axis).

- 1 Hybrid Mexican Deer (Between Cariacus mexicanus and C. virginianus ♀).
- 1 Vulpine Phalanger (*Phalangista vulpina*). 1 Squirrel-like Phalanger (*Belideus sciureus*).

1 Red Kangaroo (Macropus rufus).

1 Great Kangaroo (Macropus giganteus).

1 Yellow-footed Rock-Kangaroo (Petrogale xanthopus).

1 Bennett's Wallaby (Halmaturus bennettii).

1 Gaimard's Rat-Kangaroo (Hypsiprymnus gaimardi).

### BIRDS.

2 Saffron Finches (Sycalis flaveola).

- 3 Hybrid Grass-Parrakeets (Between Euphema chrysostoma and E. pulchella).
- 3 Egyptian Geese (Chenalopex ægyptiaca). 1 Black-necked Swan (Cygnus nigricollis).
- 7 Australian Wild Ducks (Anas superciliosa).
- 3 Spotted-billed Ducks (Anas pæcilorhyncha).
  1 Yellow-billed Duck (Anas xanthorhyncha).
- 7 Brazilian Teal (Querquedula brasiliensis).

6 Chilian Pintails (Dafila spinicauda). 2 Chiloe Wigeons (Mareca chiloensis).

6 Rosy-billed Ducks (Metopiana peposaca).

13 Geoffroy's Doves (Peristera geoffroii). 2 Crested Pigeons (Ocyphaps lophotes).

5 Amherst Pheasants (Thaumalea amherstiæ).

3 Fork-tailed Jungle-fowls (Gallus furcatus).
1 Peacock Pheasant (Polyplectron chinquis).

4 Yellow-legged Herring-Gulls (Larus cachinnans).

2 Jameson's Gulls (Larus novæ-hollandiæ).

# REPTILES.

2 Hybrid Tree-Boas (Between Epicrates angulifer, Dum. & Bibr. ♂, and Chilobothrus inornatus ♀).

1 Smooth Snake (Coronella lævis).

6 Seven-banded Snakes (Tropidonotus leberis).

The following is a List of the Donors and their several Donations for the year 1879.

Adams, Edgar T., Esq.

One Common Gannet.

Addams, The Rev. F. H.

One Lesser Black-backed Gull.

Anderson, T. G., Esq.

One Rhesus Monkey.

Arbuthnot, Lt.-Col.

One Blue-eyed Cockatoo.

Baber, R. S. E., Esq.

One Cuvier's Podargus.

Backhouse, James, Esq.

Two White-throated Capuchins.

Bagnall, F., Esq.

One Common Barn-Owl.

Baldwin, J. L., Esq., F.Z.S. One Common Magpie.

Baldwin, R. A., Esq.

Two Common Barn-Owls.

Ball, Capt. E.

One Anaconda.

Balls, Miss.

One Undulated Grass-Parrakeet.

Balston, R. J., Esq., F.Z.S.

Four Canada Geese, two Bernicle Geese, two Brant Geese, one Wild Goose, two Common Geese, three Common Ducks, three Australian Wild Ducks, two Ruddy Sheldrakes, two Common Pintails, two Gadwalls, one Bean-Goose, four Chiloe Wigeons, two Mandarin Ducks, one Summer Duck, two Common Teal, two Garganey Teal, two Chilian Pintails, two Common Wigeons.

Barclay, E. E., Esq.

One Macaque Monkey.

Barff, F. W., Esq.

One Garnett's Galago.

Barker, Miss Agnes.

One Malbrouck Monkey.

Barnes, Charles S., Esq.

One Ring-tailed Coati.

Barry, F. J., Esq.

Two Common Starlings, two Song-Thrushes, two Goldfinches, three Chaffinches, two Lesser Redpoles,

one Common Linnet, two Greenfinches, one Yellow Bunting, one Sky-Lark.

Bartle, James, Esq.

One Rhesus Monkey.

Battescombe, A., Esq.

One Torquoisine Parrakeet.

Baverstock, B., Esq.

One Grey Ichneumon.

Beagle, Mrs. E. J.

One Silver Pheasant.

Bealey, Miss C.

One Common Cuckoo.

Beech, J., Esq.

One Rhesus Monkey.

Belcher, F., Esq.

One Laughing Kingfisher.

Bells, A., Esq.

Two Egyptian Kites, three Green-backed Porphyrios.

Billett, George, Esq.

One Indian Python, one South-American Rat-Snake.

Blagden, Mrs. George. One Wood-Owl.

Blake, General.

One King Parrakeet.

Bock, Mr. Carl.

One White-whiskered Paradoxure.

Bolton, Mrs.

One Common Cuckoo.

Bond, Capt. R.

One Weeper Capuchin.

Bonhate, Leith, Esq.

Two Slender Loris.

Bonorton, W., Esq.

Three Canada Geese.

Boteler, Miss H.

One Spotted Ichneumon.

Bousfield, R. C., Esq.

One Rhesus Monkey.

Bowen, G., Esq.

One Short-tailed Wallaby.

Bowyer, Capt. T. H.

Two Pin-tailed Whydah-birds.

Boyce, J. R., Esq.

One Brown Bear.

Boyle, Moses S., Esq.

Two Crested Porcupines.

Braddick, Capt. H.

Two Indian Barred Doves, one Chinese Turtle-Dove.

Bree, Dr., F.Z.S.

Two Lesser Redpoles.

Brett, E.

One Bonnet-Monkey.

Brewis, Percy, Esq., F.Z.S.

One Ring-tailed Coati.

Bridgett, R., Esq.

One Crab-eating Raccoon.

Brown, W. B., Esq.

One Allen's Poryhyrio.

Browne, Mrs. A. H.

Two Golden Eagles.

Brownlow, The Earl.

One Black-faced Spider Monkey.

Buchanan, Mrs.

One White-backed Piping Crow.

Buckland, F., Esq., F.Z.S.

Five Salmon Trout, three Golden Tench, one American Charr, one Sky-Lark.

Buckland, Mrs. F.

One Common Hare.

Burke, Capt.

Two Common Chameleons, one Buff-backed Egret, six Small-scaled Mastigures, one Hey's Partridge.

Butler, Capt.

One Mace's Sea-Eagle.

Buxton, A. F., Esq.

One Little Grebe.

Canning, Hon. A. S. G., F.Z.S.
One Black-winged Peafowl.

Carey, E. F., Esq.

One Ring-necked Parrakeet.

Carroll, Mr.

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One Green Monkey.

Carter, E. N., Esq.

One Mule Deer.

Carter, Herbert H., Esq. One Mule Deer.

Casey, Miss Lizzie.

One Plantain-Squirrel.

Cattlin, Miss C.

One Red-and-yellow Macaw

Cattlin, Miss E.

One Macaque Monkey.

Chittenden, Dr. J. F., C.M.Z.S. One Tuberculated Lizard.

Clissold, E. M., Esq.

One Pig-tailed Monkey.

Close, Mr. G. T.

One Macaque Monkey.

Clothier, Robert F., Esq.

One Lesser White-nosed Monkey.

Cobb, F. E., Esq.

One Patagonian Sea-Lion.

Cobb, W. W., Esq.

Two Common Kingfishers.

Cocksedge, H. L., Esq.

One Banded Ichneumon.

Cole, A. C., Esq.

One Three-toed Amphiuma.

Colenso, F. E., Esq.

One Ring-tailed Lemur.

Colgate, H., Esq.

One Square-spotted Snake.

Colquhon, The Rev. J. E. Campbell. Three Common Kestrels.

Comyn, D. R., Esq.

One Black-handed Spider Monkey.

Conyngham, Lord Francis, M.P., F.Z.S.

Two Mississippi Alligators. Cooper, the Rev. Ralph.

One Globose Curassow.

Corbett, Vice-Admiral John, C.B.

Three Vulturine Guinea-fowls, one Crested Guinea-fowl.

Courage, R. M., Esq.

One Grivet-Monkey.

Crane, Mrs. Walter.

One Pig-tailed Monkey.

Cresswell, F., Esq.

Four Common Gulls, one Common Wigeon, four Grey Plovers, three Knots, one Dunlin.

Crocker, F. J., Esq.

Two Diana Monkeys.

Currey, Mrs.

One Common Marmoset.

Dart, -, Esq.

One Smooth Snake.

Davis, R. T., Esq.

One Annulated Snake.

Day, C. F. S., Esq.

One Green Monkey.

Dobrée, Mrs. B.

One Bonnet-Monkey.

Dobson, Dr. G. E., C.M.Z.S. Five Climbing Fishes.

Dodd, G. A., Esq.

One Common Chameleon.

Dombrain, H. A., Esq.
One Brant Goose.

D'Orpen, —, Esq.

One Macaque Monkey.

Douglas, Dr.

One Rhesus Monkey.

Drury, R. M., Esq.

One Bonnet-Monkey.

Dundas, G., Esq.

One Guilding's Amazon.

Dunmore, The Earl of, F.Z.S. One Golden Eagle.

Dykes, Miss Agneta B.

Two Prairie-Marmots.

Eden, The Hon. Sir Ashley, K.C.S.I.

One Yak, one Long-tailed Marmot.

Edwards, Mrs. Louisa.

One Grey Flying Squirrel.

Eggar, George, Esq.

One Bonnet-Monkey.

Elder, A., Esq.

One Vulpine Phalanger.

Elliot, E. A. T., Esq.

Two Dunlins, one Turnstone, one Ringed Plover.

Ely, Alfred, Esq.

Two Common Chameleons.

Fenton, Mrs. J. E.

One Pig-tailed Monkey.

Fisk, Rev. G. H. R., C.M.Z.S.

One Puff-Adder.

Forwood, Capt. W. P.

One Bonelli's Eagle.

Foster, J. C., Esq.

Two Great Bustards.

Foster, Miss.

One Rose-crested Cockatoo.

Franklin, Mrs.

One Macaque Monkey.

Fraser, J., Esq.

One Turquoisine Grass-Parrakeet.

Fraser, R. S., Esq.

One Demeraran Cock-of-the-Rock.

Fricke, Charles, Esq.

Two Red-and-yellow Macaws, one Red-and-blue Macaw, one Blue-and-yellow Macaw, one Common Trumpeter.

Fridrick, W., Esq.

One Weeper Capuchin.

Garrett, G. H., Esq.

One West-African Python.

Giglioli, Dr. H. H., C.M.Z.S. Five European Geckoes.

Gleig, Major H. L.

One White-fronted Capuchin.

Glennie, The Rev. A. H.

One Crested Pigeon.

Goddard, F. V., Esq.

One Macaque Monkey.

Gould, The Rev. J. A., F.Z.S.

One Purple-crested Touracou.

Granja, Marquis de la, F.Z.S.

One Spanish Imperial Eagle.

Greenfield, W. B., Esq.

One Grivet Monkey.

Greenstreet, Capt. R. E.

One Long-tailed Marmot.

Greville, The Hon. A.

One Indian Antelope.

Hance, Theodore, Esq., C.M.Z.S.

One White-whiskered Swine.

Hankey, Cecil B., Esq.

One Yellow Baboon.

Harold, Ernest E., Esq.

Two Gaimard's Rat-Kangaroos.

Hart, Dr. W. H.

One White-thighed Colobus.

Hassard, Col. F. C., C.B.

One Triangular-spotted Dove.

Hawkins, Mr. E.

One Laughing Kingfisher.

Hawtayne, G. H., Esq., C.M.Z.S.

One Anaconda, one Rude Fox, one Cobella Snake, one Coral Snake.

Head, Mr.

One Roseate Cockatoo.

Hector, Mrs.

Two Silky Marmosets.

Hillhouse, Miss.

One Grey-breasted Parrot.

Hime, Major F.

Three Globose Curassows.

Hobart, The Lord.

One Red Fox, one Rough-legged Buzzard.

Hobbs, F., Esq.

One Macaque Monkey.

Holland, Neville, Esq.

One Blue-faced Green Amazon, one Yellow-fronted Amazon.

Holt, Mrs. Eardley.

One Macaque Monkey.

Holub, Dr. E.

One Mitred Pelican, one Caracal, one Secretary Vulture, two Tawny Eagles.

Hope, Adrian, Esq., F.Z.S.

One White-cheeked Capuchin.

Hopetoun, The Earl of.

One Common Seal.

Hopkins, Mrs. H. A.

One Golden-naped Amazon.

Hopkinson, T. B., Esq.

One Common Peafowl.

Horrod, Thos., Esq.

One South-American Rat-Snake.

Huntly, Dr. J.

One Syrian Bear.

Ince, The Rev. E. C.

One Bonnet-Monkey.

Jamrach, Mr. A.

One Blue-winged Green Bulbul.

Jamrach, Mr. A. H.

One Cape Hyrax.

Jamrach, A. H., and Rice, C., Messrs. Four Australian Wild Ducks.

Jenkins, Mr. W.

One Grand Galago.

Jones, B. H., Esq. One Ocelot.

Kelly, Mrs.

One Red-and-yellow Macaw, two Yellow-fronted Amazons.

King, Captain Henry.

Two Martinican Doves, two Black-faced SpiderMonkeys, two Black Tortoises, two Tovi Parrakeets,
two Passerine Ground-Doves.

Kirk, Dr. J., C.M.Z.S.
Two Vociferous Sea-Eagles.

Lackey, W. T., Esq.
One Vulpine Phalanger.

Lacy, W. H., Esq.
Three Red Brockets.

Lambery, P., Esq.
One Guinea Baboon.

Langley, Miss.
One Lesser Sulphur-crested Cockatoo.

Laver, H., Esq.
One Greater Spotted Woodpecker.

Leckie, P., Esq.
One Common Ocelot.

Leckie, W., Esq.
One Macaque Monkey.

Leipner, A., Esq., F.Z.S. Six European Tree-Frogs.

Liardet, J. E., Esq.
One Gold Pheasant.

Lightfoot, F. J., Esq.
One Rhesus Monkey.

Lilford, Lord, F.Z.S.

One Puma, two European Bearded Vultures.

Lillington, F. C. J., Esq., R.N.
One Blue-and-yellow Macaw.

Liot, Edwin, Esq. Five Fat Dormice.

Lloyd, Capt. F. One Wood-Owl. Loder, E., Esq., F.Z.S.

Two Horned Lizards.

Loecker, C. H. C. de, Esq. One Herring-Gull.

Loyd, G. K., Esq.

Two Common Paradoxures.

Lytton, His Excellency the Rt. Hon. Lord, G.C.B., C.M.Z.S. One Tiger, two Indian Leopards.

Macpherson, H. A., Esq.

Four European Tree-Frogs, one Fire-bellied Toad, One Natterjack Toad, two Common Crossbills, two Goldfinches.

Mann, Thomas G., Esq.

One Ring-tailed Lemur.

Marshall, E. L., Esq.

One Guianan Tree-Partridge.

Marshall, W. G., Esq.

Three Prairie-Marmosets, one Mississippi Alligator.

Marthege, J. N. Tiedeman, Esq. One Green Monkey.

McCubbin, Hugh, Esq.

Two Ring-tailed Lemurs.

Medley, J. E., Esq.

One Bonnet-Monkey.

Meyerstein, E., Esq.

One Vervet Monkey.

Middleton, R. M., Esq. One Black Rat.

Milestone, Mr. R. J.

One Common Lobster.

Miller, W. T., Esq.

One Vervet Monkey.

Millet, Capt. F. P.

One Indian Fruit-Bat.

Mills, J., Esq., R.H.A.

One Entellus Monkey.

Monro, R. W., Esq.

A Collection of Sea-Anemones.

Moon, Mr. R.

One Common Kestrel, one Silver Pheasant.

Mortimer, Capt. J. H.

One Mississippi Alligator, three Land Hermit-Crabs, two small Anemones, eight American May-fishes. Murray, Capt.

One Indian Kite.

Murray, J. Douglas, Esq.

One Green Monkey.

Naylor, F., Esq.

One Guinea Baboon.

Norris, Mr. H.

One Common Barn-Owl.

Ogilvy, Canon G.

One Madagascar Boa.

Payton, Miss E. A. B.

One Green Monkey.

Petty, Mr. W.

One Chilian Pintail, one Chilian Teal.

Phillips, S. E., Esq.

One Bonnet-Monkey.

Piggott, Mrs. L. C.

One Macaque Monkey.

Pollard, Mr. J.

One Woodcock.

Powerscourt, The Viscount, F.Z.S.

Three Japanese Deer.

Pratt, Commander J.

Two Egyptian Gazelles, one Caspian Ouaran.

Preston, Harry W., Esq.

One Common Gull, two Black-headed Gulls.

Prince, F. S., Esq.

One Ring-necked Parrakeet.

Pryer, H., Esq., C.M.Z.S.

One Japanese Goat-Antelope.

Raves, Mrs. James.

One Macaque Monkey.

Redman, E. J., Esq.

One Black-backed Jackal.

Reinhardt, Prof. J., F.M.Z.S.

One Black Stork.

Rice, Mr. Charles.

Two Chinese Tree-Pies.

Ridley, Sir M. W., Bart., M.P.

Five Peregrine Falcons.

Roberts, R. Wynne, Esq.

Three North-American Turkeys.

Ruegg, L. H., Esq.

One Bonnet-Monkey.

Russell, Harold, Esq.

One Skate. Sabel, E. E., Esq.

Three Horned Lizards.

Sabunjie, The Rev. J. L.

One Malbrouck Monkey.

Salmon, M. B., Esq.

One Kinkajou, two African Civet-Cats.

Sandbach, H., Esq.

Two Domestic Sheep.

Sandeman, G. G., Esq.

One Great Bustard.

Sandford, Miss.

One Mona Monkey.

Sargent, A., Esq.

One Weeper Capuchin.

Scott, Sir Arthur, Bart.

One Vervet Monkey.

Shapland, Mr. J.

0

One Common Cuckoo.

Shean, Capt. A. W.

One Pig-tailed Monkey.

Shuter, James, Esq.

One Norwegian Lemming.

Sinclair, A., Esq.

One Bateleur Eagle.

Smith, Sir Charles.

One Chinchilla. Smith, F. L., Esq.

One Pomatorhine Skua.

Smith, G., Esq.

One Common Badger.

Smith, I., Esq.

One Common Wood-Owl.

Smith, W. A. H. B., Esq. One Slowworm.

Smith, Capt. W. Bowden, R.N. Two Arabian Gazelles.

Smith, Mrs. T.

One Dufresne's Amazon.

Smyth, Morris H., Esq., R.N. One Noddy Tern.

Soper, W., Esq.

Two Silver Pheasants.

Southey, R., Esq.

One Caffer Cat.

Speer, Surgeon F.

One Puff-Adder.

Stradling, Dr. A.

One Chequered Elaps, two Tuberculated Lizards, one Taraguira Lizard, one Cayman, one Downy Owl, two All-green Parrakeets, one Common Boa.

Stirling, A., Esq.

One Rose-Hill Broadtail.

Surry, Robert, Esq.

One Grey-cheeked Monkey.

Swabey, F., Esq.

Five Water-Ouzels.

Taylor, J. W., Esq.

One Greater Sulphur-crested Cockatoo.

Thompson, J. S., Esq.

One Red-throated Diver.

Thomson, C. A., Esq.

One Macaque Monkey.

Thorowgood, J. C., Esq.

One Common Waxbill.

Thursfield, Thomas, Esq., M.R.C.V.S.

One Common Jackal.

Tinne, J. Ernest, Esq.

One Bush-Dog.

Trent, W., Esq.
One Macaque Monkey.

Turquand, W., Esq.

Two Californian Quails.

Venables, Major.

One Common Rhea.

Vivian, Lieut.-Col. Ralph, F.Z.S. One Wizlizenus's Lizard.

Walker, R. B. N., Esq., C.M.Z.S. Two Domestic Sheep.

Walsingham, Lord, F.Z.S.

Fourteen Golden Tench.

Ward, Mr. J.

One Long-eared Bat.

Watson, Mrs.

One Ring-necked Parrakeet.

Watts, C. H., Esq.

One Persian Gazelle.

Weir, Surgeon-Major C. J.

One Rough Terrapin, one Adorned Terrapin.

Whaley, C. H., Esq.

One Black-faced Ibis.

Wheatley, James, Esq.

One Common Fox.

Whitmarsh, H. B., Esq. One Capybara.

Wiener, A. F., Esq., F.Z.S.

Two Malabar Mynahs, one Chinese Mynah, one Waxwing, two Pied Wagtails, one Wiener's Finch.

Wilkinson, Rev. S. R., F.Z.S.

Seven European Tree-Frogs, one Green Lizard, three Spotted Salamanders.

Windsor, Miss J.

One Herring-Gull.

Windus, W. E., Esq.

One Bennett's Wallaby.

Winsor, H., Esq.

One Rhesus Monkey.

Withers, Mr. Alfred.

One Common Hare.

Wood, George, Esq.

One Slender-billed Cockatoo, one King Parrakeet.

Woodler, J. W., Esq.

One Small Hill-Mynah.

Young, J., Esq.

Two Common Buntings.

Young, W., Esq.

Three Common Boas.

#### Conclusion.

In concluding their fifty-first Report, the Council regret not to be able to give such a good account of the financial progress of the Society as on some previous occasions; but they have no doubt that the check experienced is merely a temporary one, and will pass away along with the state of affairs to which it is to be attributed.

In every other respect they believe that good progress has been made since the last Anniversary; and, as regards the present year, there seems, so far as we have gone at present, to be no diminution in the interest taken by the public in the Society and its operations.

Lastly, the Council have to acknowledge, with many thanks, the assistance they have received from the Committee of Publication, and from the gentlemen who have served upon the Committees of Finance and Audit.

Signed (for the Council),

P. L. SCLATER,

Secretary.

11 Hanover Square, April 29th, 1880.

# REPORT

OF THE

#### AUDITORS OF THE ACCOUNTS

OF THE

# ZOOLOGICAL SOCIETY OF LONDON,

Appointed January 22, 1880.

THE Committee of Auditors to the Zoological Society having fully examined the Accounts, inspected the Books, and seen Vouchers for all the various Payments ordered by the Council for the year ending December 31st, 1879, respectfully submit to the Society an Abstract of such Accounts, together with a Statement of the Assets and Liabilities at the close of the year, and a Report thereon.

	RECI	EIPTS								
Balanc	e brought from Dec. 31, 1878							£ 754	s. 14	
alanain	INCOME.							=		
elonging o years	income.	£	8.	d.	£	s.	d.			
1875	Garden Sales				4	0	0			
1876	Admission Fees	The state of the s			5	0	0			
	Garden Sales		10	(43)						
1877	Admission Fees	-		0						
	Subscriptions		0	9						
1	Publication Sales	0	U	J	30	10	0			
/	Rent for Refreshment Rooms	116	1	8	00	10				
	Rent for Freehold Premises			0			-			
	Garden Sales			11						
1878 {	Admission Fees			0						
	Subscriptions			0						
	Ivory Tickets	2	77	0						
1	Publication Sales	194	7	11						
	all the state of the state of the state of	15 015	-	_	623	1	6			
ĺ	Admissions to Gardens		7	0				N-III		
	Rent for Refreshment Rooms	CT Property Control	0	0						
	Rent for Freehold Premises		9	9						
	Admission Fees		0	0						
	Compositions			0						
1879 {	Subscriptions			0						
	Ivory Tickets	6,550	8	0						
	Publication Subscriptions			0						
	Publications Sales	159		1	-					
	Dividends		8	4				A TEN		
	Miscellaneous		9	1				100		
				_	25,713	2	3			
1880	Subscriptions	78		0						
1000	Publications Subscriptions	9	9	0	0.0					
				_	87	9	0			
		I THE			L. St.					
INCOM	ME RECEIVED IN 1879				26,463	3	6	26,463	3	
						20.71	Uniform Co.	20,100	U	
		4								
							1			
							-			
		211						27,217	10	-
								1.1.1.1	4 6 7	

#### PAYMENTS.

	Belonging to						1		
	10'	70		10			To	otal.	
EXPENDITURE.	10,	78.		187	9.	To any			
- III DITUILL.			,						
Rent, Rates, Taxes, and InsurancesGardens	£ 211	S.	d. 2	£	S.	d.	€	8.	d.
Ditto dittoOffice	20	12	3	922 62	10000	6	1,134	10	8
Salaries, Wages, and Pensions Gardens				3,214	700	1	3,214		1
Ditto dittoOffice				1,892		5	1,892		5
Cost and Carriage of Animals	161	11	0	140500000000000	9	2	1,511		2
Provisions	455	12	1	4,180	8	3	4,636		4
Menagerie Expenses	497		10	2,785	12	8	3,283	4	6
Keepers' Dresses	40	0	0	141	18	0	181	18	0
Works	436	3	11	2,892	11	3	3,328	15	2
BuildingsOffice				200	0	0	200	0	0
Garden Expenses	27		8	843	6	9	871		5
Band Expenses	58	3	1	229	17	2	288	0	3
House and Office ExpensesGardens	20	10	7	221 243	8	6	221	8	0
Ditto dittoOffice	60		0	357	19	1	264 417	19	1
Stationery	8	3	8		16	2	70	19	10
Printing (Miscellaneous)	26	3	0	391	4	0	417	7	0
Publications	122	13	6	2,044		7	2,167	11	1
Library Expenses	115	3	5	322	0	0	437	3	5
Returned Subscriptions				43	8	0		8	0
Law Expenses	4	17	0				4	17	0
Grant to the Zoological Record Association				50	0	0	50	0	0
Davis Lectures				74		4		8	4
Interest on Mortgage Debt		• • • • •		352	10	0	352	10	0
	11/11				11	_			
	2,267	9	2	22,879	8	0	25,146	17	2
Repaid Messrs. Drummond on account of Mo	rtgage	Deb	t .		••••		1,000	0	0
Cash at the Banker's, December   General A	Account			£723	2	4			
31, 1879, viz. Petty Casi									
				-		_	1,071	1	3
						-	1		
							27,217	18	5

# Comparison of Receipts in 1878 and 1879.

1878.  £ s. d. 110 0 0 705 0 0  33 0 0 6,620 5 0 81 0 0 840 0 0	66 0 0 6,550 9 0	£ s. d.	£ s. d.
110 0 0 705 0 0 33 0 0 6,620 5 0 81 0 0 840 0 0	110 0 0 585 0 0 66 0 0 6,550 9 0		
64 13 0 16,516 6 0 746 6 3 963 8 4 300 0 0 887 18 0 64 18 11 11 11 5	78 0 0 900 0 0 41 10 0 15,215 7 0 401 9 8 1,223 1 8 300 0 9 881 8 9 74 8 4 36 9 1	259 13 4 259 13 4 9 9 5 24 17 8	69 16 0 3 0 0 
ceipts in 1879 . yments in 1879.	1,481 3 5 27,944 6 11	£26,463 3 6	387 0 8
December 31, e Year	1878		£ s. d 754 14 11 26,463 3 6
	963 8 4  300 0 0 887 18 0 64 18 11 11 11 5  27,944 6 11  27,944 6 11  ceipts in 1879 . yments in 1879. over Payments  C  December 31,	963 8 4 1,223 1 8  300 0 0 0 887 18 0 881 8 9 64 18 11 74 8 4 11 11 5 36 9 1  27,944 6 11 27,944 6 11  ceipts in 1879  whents in 1879  Cash  Cash  December 31, 1878	963 8 4 1,223 1 8 259 13 4  300 0 0 0 881 8 9

## Comparison of Payments in 1878 and 1879.

	I	Pay	yme	ents.					
	]	Exp	end	iture of			Increase.	Decre	200
	187	8.		187	9.		Increase.	Decrease	
Arrears of previous years Rent, Rates, Taxes, and In-	£ 3,710		$\frac{d}{2}$	£ 2,267	9		£ 8, d.	£ 8	
surance	942	11	2	985	15	7	43 4 5		• • • •
sions	5,501 1,008		9	5,106 1,349		6 2	341 2 5	394 1	
Provisions	4,249		2	4,180	100	3		69 4	1
Menagerie Expenses	2,612		9	2,785		8	172 14 11		
Keepers' Dresses Works, Repairs, and Mate-	137	1	6	141	18	0	4 16 6		•••
rials	2,622	15	5	2,892	11	3	269 15 10		
Buildings	956	-	5	200	_	0			
Garden Expenses	852 224		3	843 221	6	9			10
Band Expenses Advertisements	161		7	221	17	2	67 18 7		
House and Office Expenses	564		8	601	0	7	36 17 11		
Stationery and Account Books	63		0	62	16	2			3 1
Printing (Miscellaneous)	418		9	391	4	0		26	
Publications	2,397 281		9	2,044 322	0	7	40 12 0	352	
Library Expenses	43	2	0	43	8	0	0 6 0		
Cost of Medals	10		6					10	
Grant in aid of Science	50	0	0		-				
Expenditure of Davis Bequest Interest on Mortgage-debt	64 392	18 18					9 9 5	40	
Decrease	27,266			25,146 2,119			986 18 0 Ded. Incr.	3,106 986	
	27,266	15	9	27,266	15	9		2,119	18
Ordinary Expenditure	25,048	1	6	23,908	6	1		1,139	15
Extraordinary ditto	2,218			1,238					
•	27,266	15	9	25,146	17	2		2,119	18
D 11.1		(	Con	tra		_	-	0	r.
n n 10 - 111 d			3				- blagger to	£	8.
By Expenditure paid in the ye By Repayment to Messrs. Dr	ummon	do	0 000	count of	Mo	rton	ore.	25,146	
By Balance at Banker's, Dec								1,071	
							-	27,217	

The Assets and Liabilities of the Society on the 31st of December 1879 were as follow:—

		Arrears of					Freehold and Funded Property.			Cas		(Flota)			
	Previous Years.		Current Year.			Cas				п.	Total.				
CashattheBanker's							£							d. 3	
Cost of £1900 Lond. & South- western Ry. Co's New 4 per Cent.		*													
Preference Stock.							1,93	8 9	6			1,938	9	6	
Freehold Premises. Annual Subscrip-			999				24,20			Discourse and the second		24,205		(	
tions	123	0	0	209		0						332	0	(	
[vorv Tickets	9	9	0	6	6	0						15	15	(	
Publication Sales	16	4	6	293	17	7						310	2	1	
Garden Sales Rent for Freehold	14	18	0	89	9	2		•••••	•••			104	7	2	
Premises				75	0	0						75	0	(	
	169	11	6	673	12	9	26.14	13 9	6	1.071	1 3	28,051	15	-	

### LIABILITIES.

	Del	ots.
Bills, &c., estimated at— For the Gardens, say Office, say	£ s. d. 985 11 8 460 14 10	£ s. d.
Rent and Taxes unpaid— For the Gardens, say	155 7 1 17 3 9	172 10 10
Messrs. Drummond, Mortgage Debt Messrs. Aldin and Sons, Balance of Contracts		8000 0 0 341 5 0
		9,960 2 4

The Auditors regret that they are again unable to report an increase in the Society's revenue; but the decrease in the amount of Admissions is far less than it was in 1878; and, when the unexampled bad weather of 1879, coupled with the continuous depression, is taken into consideration, they consider that, even on this item, the state of affairs is not altogether unsatisfactory. It will also be observed that the decrease in expenditure (£2119 18s. 7d.) is much greater than the falling-off in the receipts (£1481 3s. 5d.), whilst the liabilities have decreased by no less than £1169 18s. 3d. These considerations seem to afford well-founded reasons for congratulation, and for the expectation of more favourable times.

The Auditors have pleasure in expressing their entire satisfaction with the manner in which the Accounts have been placed before them by Mr. Barrow, the Society's Accountant.

JAMES TENNANT.
EDWARD JOHNSTONE.
HERBERT DRUCE.
HOWARD SAUNDERS.
W. T. BLANFORD.
W. B. TEGETMEIER.

11 Hanover Square, W. February 26, 1880.