

THE NORTH OF ENGLAND ZOOLOGICAL SOCIETY



Annual Report 1986

CHESTER
ZOO



1986 was a very successful year. The public showed increased interest in our activities and attendances were up by 4.6%. The animal collection did well and, although a few species were withdrawn, including the last gorilla leaving to join the breeding group at Bristol Zoo, the numbers of mammals, birds and reptiles which have successfully bred and reared have risen. The dispatch of a group of Père David's deer back to China for release into the wild was a notable achievement.

Financially, the trading showed an improvement of £241,000 over 1985.

I want to thank the public, the members, the adopters, sponsors and volunteers and particularly the staff who made 1986 a success and who have laid the foundation for the coming year, Chester's fickle weather permitting, to be just as, if not more, successful.

Michael Brambell
Director

The North of England Zoological Society

A NOTE ON THE HISTORY OF THE ZOO

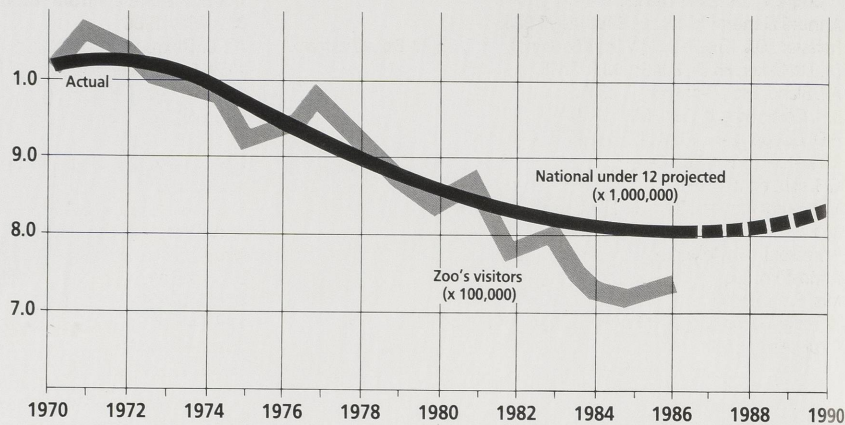
Chester Zoo was founded by the late George Mottershead (1894-1978). Mr. Mottershead bought the Oakfield and its surrounding buildings and nine acres of land in 1930, having previously been a partner in the running of an animal collection at Shavington, near Crewe.

The Zoo opened to the public in the spring of 1931. In 1932 the company Chester Zoological Gardens Ltd. was formed to run the Zoo. This did not thrive and in 1934 the North of England Zoological Society Ltd. was founded, as a company limited by guarantee, to take over the Zoo.

For several years the Zoo struggled to survive but by the end of the 1940s it was on a financially sound basis and application was made to convert the Society into a Scientific and Educational Charity. Charity status was granted in 1950 and it became possible to drop the word 'Ltd' from the Society's name.

Over the years more land was acquired as it became available until eventually almost 470 acres was owned by the Society. The Zoo itself expanded to cover almost 100 acres and many buildings and enclosures were constructed.

By the middle 1960s the Zoo was attracting over 1 million visitors a year with a peak in



1967 of 1,147,807 visitors.

Since the early 1970s the number of visitors has declined.

Chester Zoo developed on a policy of spacious enclosures, extensive gardens and functional buildings, many constructed from prefabricated agricultural building components. Much use was made of surplus materials arising out of the Second World

War and from the demolition of sandstone built farm buildings which was widespread in Cheshire in the 1950s and 1960s.

Since 1970 the Zoo has been facing greatly increased

competition, unprecedented inflation, a decline in the younger part of the population and a rising legislative demand for standards of construction and operation.

THE COUNCIL

Council Members during period prior to Annual General Meeting, 31st May 1986.

Professor J.O.L. King Ph.D., M.V.Sc., B.Sc.(Agric.), F.R.C.V.S., F.I. Biol. (Chairman).
 Dr. J.R. Baker, Ph.D., B.V.Sc., M.R.C.V.S.
 A.J. Bland, Esq., Dipl.Arch., R.I.B.A.
 B.H. Coles, Esq., B.V.Sc., M.R.C.V.S.
 H.D. Cooper, Esq., F.I.M., F.S.F., F.I.F.F., Cert.A.I.B.
 R. Heaton, Esq., B.Ed., Cert.Ed., F.G.S., F.R.G.S.
 G.B. Hibbert, Esq.
 Mrs. S. Ironmonger, B.Sc., M.I.Biol.
 Mrs. B. H. Irvine.
 Professor D.H. Molyneux, M.A., Ph.D., F.I.Biol.
 F. Mosford, Esq.
 Mrs. E. Parkinson.
 Sir Leslie Young, C.B.E., B.Sc.(Econ.), (resigned 31st January 1986).
 I. Yule, Esq., E.R.D.

Council Members from Annual General Meeting, 31st May 1986

A.L.B. Thomson, Esq., F.R.I.C.S., F.C.I.Arb., M.A.Cost.E. (Chairman).
 T.G.J. Brightmore, Esq., M.S., F.R.C.S.
 L.D.B. Bryceson, Esq., B.Sc.
 B.H. Coles, Esq., B.V.Sc., M.R.C.V.S.
 Dr. D.A.P. Cooke.
 Miss J.P. Dixon, C.Chem., F.R.S.C.
 A. Guy, Esq.
 J.H. Howatt, Esq., F.C.A.
 M.A.R. Johnson, Esq., M.A., F.C.A., F.C.M.A.
 Mrs. B.J. Jones, B.Sc.
 B. Livingstone, Esq., M.B., Ch.B., F.R.C.S.
 Dr. J.S. Madden, M.B., B.Ch., B.A.O., F.R.C.P., F.R.C.Psych.
 W.F. Padget, Esq., B.A., Dip.Cam.
 Mrs. J. Straughan.
 N.J.W. Wilson, Esq.

Director and Company Secretary
 Dr. Michael R. Brambell, M.A., Vet.M.B., M.R.C.V.S.
 Financial Controller and Deputy Director
 E.A. Du Cros, Esq., F.C.A.

MEMBERSHIP AS AT 31st DECEMBER 1986

Life Members	179
Honorary Members	9
Members of more than 25 years standing & over pensionable age	12
Annual Members	802 1002
Associate Members	29
Junior Members	501 530
TOTAL (all categories)	1532



Introduction by the Chairman

It cannot be ignored that the year under review started turbulently with two General Meetings and a number of items in the press questioning the financial stability and thus the future of the Society. Whilst the publicity gained, may not in the end, prove to have been all to our disadvantage, in that a wider area of the North West is now more aware of Chester Zoo I do not believe that we can, again, afford to sustain such discord.

Of the Council which took office on 31st May 1986 only one Member, Brian Coles, had served before. Thus the period immediately following the A.G.M. was one of consolidation and preparation for the implementation of the Society's plans for the future. An early priority was to re-negotiate the Director's Terms of Employment and to examine the method of administration of the Society's business and the day to day running of the Zoo.

It is fundamental that the Members elect the Council which in turn employs the Director and senior management, who are directly responsible for the daily operation of the Zoo in all spheres; thus the Council sets

the Society's policies and acts in an advisory capacity but not in an executive role.

I was anxious to reduce the amount of time taken by Council, in open debate at meetings, over details of policy, and thus an effective system of committees was initiated whereby Council members meet at regular intervals between Council meetings, often with senior management, to review strategy and to make policy recommendations to full Council for endorsement. I was conscious of the comments made by some members at the last A.G.M. that Council meetings should be open to all members, this I do not believe to be practicable. However, part of each Council meeting is now set aside for the Heads of Department and the Chairman of the Staff Association to attend when they can bring any points of interest or concern to the attention of full Council.

The 1986 budget prepared by the Director and Financial Controller was reviewed and confirmed by the Finance Committee and I am delighted to report that their expectations were exceeded and produced a trading surplus of some £109,000 – this represents an overall improvement of £241,000 on 1985. Concern was expressed by members at

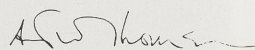
the last A.G.M. too, that the next Council might dispose of the Society's land assets to raise capital. As I have previously stated to a staff meeting, and I confirm here, I do not believe that we have a mandate nor do I foresee the need to dispose of any land except perhaps for the small 10 acre site to the west of the A41, which is isolated from the remainder of the Zoo estate and which cannot be usefully or economically incorporated into our long term plans.

1986 cannot pass without congratulations from all of us to the staff and especially to our gardeners for winning the Chester in Bloom competition and also the appropriate category of the North West Britain in Bloom competition. We should also be proud of the major role which we have played in the return of the Père David's deer to the wild in China and also the rearing of our fourth generation chimpanzee, the hatching and rearing of two more Andean condors and the first successful hatching and rearing in the collection of a sarus crane.

As to the future, I am pleased to report that Council has given approval to the launching, shortly, of a special fund raising campaign for an educationally based exhibit within the old stable block,

designed to interpret the fragility of the Earth's wild areas. Despite one or two reservations being voiced on the wisdom of financing this project rather than a new animal exhibit, it was considered that not only will such a centre make Zoo visits more enjoyable for the public it will also encourage them to become more aware of the importance of conservation and the role the Zoo has to play. In parallel, plans are also afoot to re-house the chimpanzees, partially with a grant to be made available from the Trust Fund; I am hopeful that this long overdue need can be started before the end of this year.

Finally, we must not forget that whilst our foundation is one of a scientific and educational background, to succeed, we must also be commercial, and we must strive to improve our place as one of the major tourist and recreational attractions in the North West. My aim is to make Chester Zoo an informal, friendly and safe place both to visit and to work in and I am confident that we have made a start in the right direction – our ultimate success depends upon a healthy Society, coupled with strong leadership from Michael Brambell and the members' duty of support to him.



CHAIRMAN



Review of the Year

In 1986 the number of visitors to the Zoo showed a 4.6% increase from 700,451 in 1985 to 732,991. This was achieved in a year which had experienced an early Easter with a very wet spring and a wet August. Nevertheless, in weather terms, 1986 showed an improvement over 1985, when all three of the summer months June, July and August, had been much wetter and much cooler than normal.

Financially, the Zoo showed a 10% improvement in the Income and Expenditure Account, with a trading surplus £108,698 compared with the trading deficit of £132,212 in 1985. At the end of 1986 the

Balance Sheet showed an improvement over the twelve months of £123,311 putting it in its strongest position since 1981. The cash position showed an improvement over the year of £102,000 in spite of capital expenditure of £137,000 having been undertaken during the year.

The Council is confident that these changes have placed the Zoo in a favourable position to begin tackling the major outstanding problems facing it, and to look ahead towards the mid-1990s and the turn of the Century.

Whilst immediate problems, such as the provision of up-to-date quarters for chimpanzees, the refurbishment of many of the animal houses, safeguarding the Oakfield and rescuing the Stable Yard (both listed buildings) as well as the

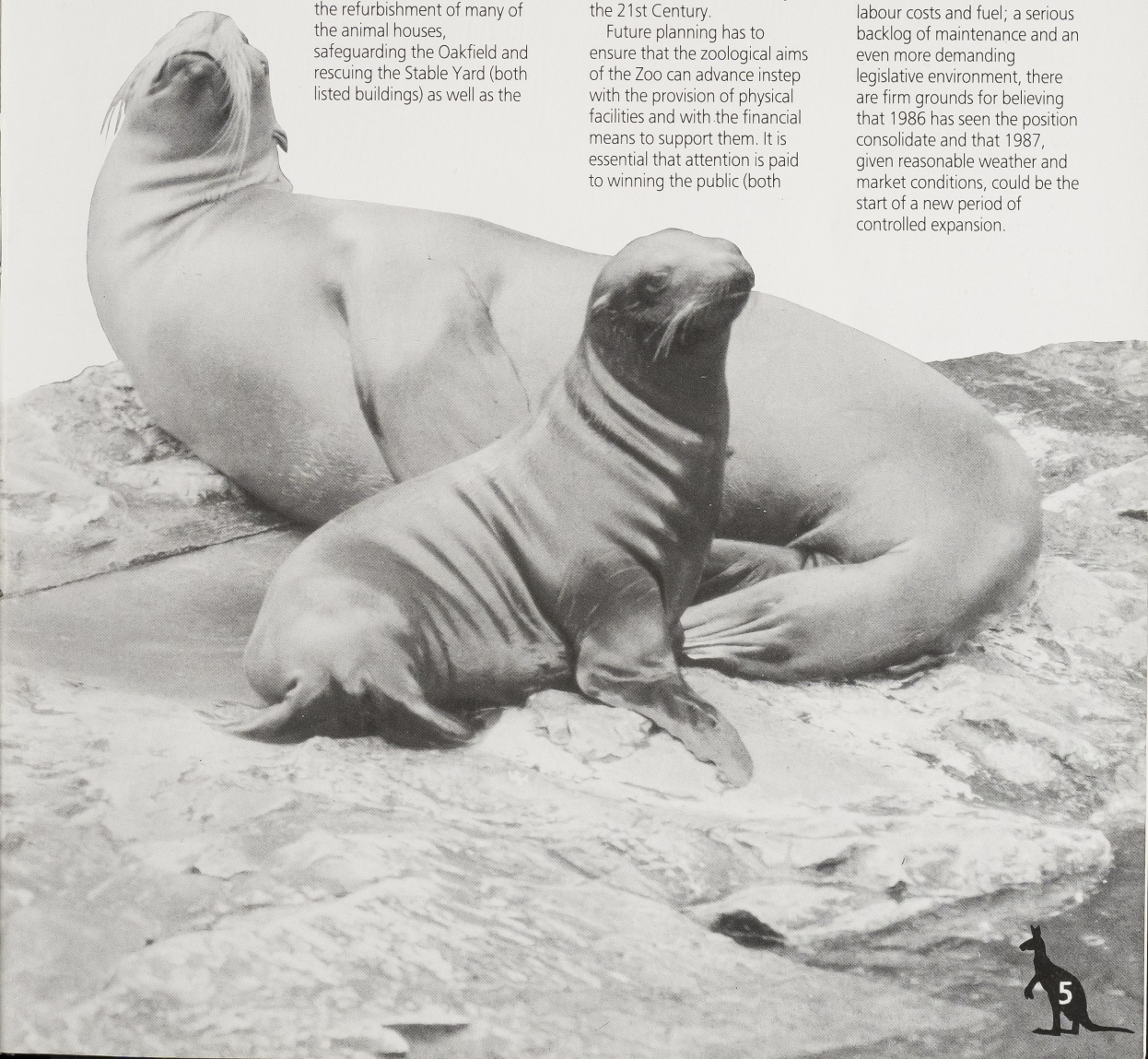
improvement of staff working conditions and the elimination of all areas in which safe working practices cannot be guaranteed in future, it is important that the Society plans further ahead so that its Zoo can meet the demands of the future and not those of the present or the past.

To this end not only has financial planning been undertaken, with the aim to eliminate net borrowing and to provide for Capital expenditure of at least £1 million within the next five years, but also structural planning is in progress, to allow the Zoo to evolve coherently as a forward looking modern zoo, worthy of the 21st Century.

Future planning has to ensure that the zoological aims of the Zoo can advance in step with the provision of physical facilities and with the financial means to support them. It is essential that attention is paid to winning the public (both

from likely competitors and from apathy). Indeed, however perfect its exhibition, the Zoo would be failing to fulfil its purpose if it was not endeavouring to reach the greatest possible public whilst maintaining its standards.

After years of forced contraction, arising out of the combined effects of a falling market base, with a 20% fall in young children from 1970 to 1985; increased competition, with over half the potential competitors in the North West listed by the English Tourist Board having opened since 1970; the worst period of inflation this country has known, and real increases in labour costs and fuel; a serious backlog of maintenance and an even more demanding legislative environment, there are firm grounds for believing that 1986 has seen the position consolidate and that 1987, given reasonable weather and market conditions, could be the start of a new period of controlled expansion.



area in which they once roamed in the wild.

The Society was involved in another release scheme in 1986 when nine barn owls *Tyto alba* which had been bred in the collection were released at nearby sites in co-operation with the University of Keele and Thurstaston Country Park. (The full list of animal species and individuals in the collection is give on pages 28-40).

The annual food bill for the animals in the collection was £175,901 of which £29,220 was contributed by the Adoption Scheme and £10,336 was produced on site. The Adoption Scheme is now covering 16.61% of food costs and the Society is very grateful for the enthusiastic help it receives from the many adoptors who have joined the

scheme. (A list of adoptors is given on pages 22 to 25).

The consultant veterinary surgeons dealt with 277 clinical cases during the year, involving 1057 clinical inspections, etc. Immobilisation/anaesthesia was carried out on 92 occasions. Post mortem examinations were undertaken on 349 bodies of mammals, birds and reptiles.

	Clinical Cases	Post Mortem Examinations*
Mammals	208	97
Birds	39	161
Reptiles & Amphibians	30	127

* Includes examination of unhatched dead-in-shell birds, does not include Prairie Marmots presumed to have died in their burrows, but does

include 36 animals sent to University of Liverpool for Post Mortem examination.

During 1986 the Tiger enclosure was refurbished and a new Tiger House built made possible by a grant from the 'Trust Fund'. A hatching and rearing area for birds has been upgraded and extended behind the Giraffe House. The Bird House kitchen was demolished

and a more substantial building erected to replace it. The first part of the Children's Farm was opened and has proved very popular. Unfortunately, the

second part has been deferred to the 1987 programme to allow work under the terms of the Zoo Licensing Act to be carried out.

New radiant heating systems have been installed in the Elephant House and the Rhinoceros House and have proved to be very effective as well as being much cheaper. Energy for animal areas cost £73,800 in 1986.

The Estate Division

This division is made up of the Gardens Department under the Head Gardener and his Deputy, the Groundstaff under the Head Groundsman and the Maintenance Department under the Maintenance Foreman. It is also responsible for the Waterbuses.

The gardens had a particularly good year, winning both the Chester in Bloom competition and the appropriate category in the North West Britain in Bloom competition. New work has

concentrated on rejuvenating shrubberies and on improvements to the greenhouses.

The shrubbery between the Jubilee lawn and the South American garden was cleared of all but the Laburnum trees and replanted with lawn seed, providing a very attractive shaded area of grass in this part of the Zoo.

A Leylandia hedge has been planted behind the new perimeter fence along Caughall Road to provide sight and

wind shield along the edge of the Zoo.

The 'Gingko' shrubbery behind the Tropical House has been thinned of its time-worn plants and has had a variety of new shrubs and conifers added to it.

enclosure.

Two greenhouses were improved, the work being done mostly by the gardening staff. The old earth and gravel floors were dug out and replaced with concrete pathways and the wide-bore heating system was replaced by narrower bore piping. The fabric of the houses was stripped down and treated with preservative. Whilst it will not be economic to refurbish all the greenhouses in this way, some will have to be replaced in due course, it is clear that the life of many of the greenhouses can be extended satisfactorily for a lot longer than we had previously thought.

A new steel-hulled boat was

wooden boats which are proving more and more difficult to maintain.

The Groundstaff maintained a high standard of service to the public, but it must be admitted that, apart from the main lavatory block beside the Jubilee Cafeteria, the lavatories need to be brought up to modern standards. We hope to have all the lavatory accommodation up to at least the standard of the new block within two or three years.

The Maintenance Department are limited by the funds which can be made available for the improvement and replacement of facilities.

The entire perimeter of the Zoo, including the two sides of Flag Lane is slightly over two miles and, apart from a few details and the provision of new gates, the work is expected to be finished in the first half of 1987.

The provision of heating and electric power is a major function of the Estate Division. Fortunately in 1986 oil prices fell, though not until after the period of maximum demand. Oil-fired space heating is efficient in many parts of the Zoo, but in some buildings where the animals occupy only

a relatively small part of the whole building, electric radiant heating is likely to be considerably more efficient in maintaining the temperature in the immediate vicinity of the animals. Where it can be provided, gas is a more easily managed fuel than oil and

some boilers, and the incinerator, have been converted to this fuel.

Alterations were made in the Elephant House to accommodate two female elephants being kept at Chester for two years before going on to Belfast Zoo.

Outside the Zoo, there is an increasing demand by caravan clubs to hold weekend rallies on the Society's land and this is providing a useful additional income as well as bringing more people to visit the Zoo.



Similar work has been undertaken in beds near the Jubilee Garden and round the Tiger

built for us by the Manpower Services Commission Youth Training Scheme at Cammell Lairds to replace the ageing

Nevertheless, the refurbished Tiger Enclosure was completed during the year and considerable progress was made in the provision of a perimeter fence round the Zoo.

The Education Division

The Educational work done at the Zoo falls into a series of categories.

- 1) Those children and students brought to the Zoo in parties and taught by the Zoo's teaching staff.
- 2) Those children and students brought to the Zoo in parties and taught by their own teaching staff.
- 3) Those children and students who are taught by their own teaching staff making use of teaching material supplied by the Zoo.
- 4) Ordinary visitors to the Zoo who make use of the opportunity to have a guided tour or demonstration given by a volunteer under the 'Friends of the Education Department Service'.

In 1986 teachers' industrial action continued to affect the

number of children being brought to the Zoo in organised school parties. There was a 7% drop in the number being taught by our own staff, that is from 12,734 in 1985 to 11,834 in 1986. The drop in parties brought to the Zoo and taught by their own teachers was greater, from 70,867 in 1985 to 50,776 in 1986. Where accompanying staff was not a point at issue these effects did not show, e.g. post 18 year old students remained the same at 876 (880 in 1985) and private school parties increased by 20% from 2,873 in 1985 to 3,430 in 1986.

It is not possible to measure the number of children benefitting in their own schools from Teacher's Packs originating from the Zoo, but the demand for Teacher's Packs is high and

we believe that as soon as the constraints of industrial action are removed this will manifest itself as an increased demand to bring parties to the Zoo for formal teaching. We are particularly grateful to Barclays Bank for its sponsorship of the Teacher's Pack on Tropical Rain Forests.

During the year the volunteer programme known as Friends of the Education Department Services, a name which is more comfortable as its acronym FEDES, was launched and about 40 volunteers have been helping from July onwards. Their principal activities have been guided tours, the Tropical House touch cart in which are carried a variety of items for members of the public to touch and talk about with the attending volunteer and the

brass rubbing centre, where the visitors can make brass rubbings of a wide range of endangered species.

Volunteers have worked elsewhere in the Zoo and the Society is very grateful for the helpful and disciplined way they have given of their services.

The Education Division is led by Miss Norgain who is seconded by Cheshire County Council. She has a small staff of five Zoo employees; three term-time teachers and two part-time secretaries, and there is a Manpower Services Commission Community Programme which employs 15 people of a wide range of skills from teaching and administration to information officers and artists.

The Marketing Division

The Zoo achieved widespread publicity in all the media throughout 1986. Television coverage was given on several animals, including the Aldabra tortoise, a lion cub, the tigers in their new enclosure, the ring-tail lemurs on the island, penguin chicks in the incubation area, Pere David's deer en route to China. Two blue-eyed cockatoos stolen from the Zoo were recovered as a result of press, radio and television coverage. The Director and the Curator of Mammals both gave television interviews on zoological items.

Marcher Sound continued with its summer Sunday

morning spot on the Zoo and a Member, Mr. Bill Dutton, made regular broadcasts on B.B.C. Wales in Welsh in which "Morgan y Mwni" (Morgan the Monkey) has featured as a medium for publicising the Zoo. We are very grateful to Mr. Dutton for his help in reaching the Welsh speaking part of our market.

During the year television made use of the Zoo to produce the 1987 series of the programme 'One by One', which features the life in the early 1970s of a Zoo vet, played by Rob Heyland and a senior keeper played by James Ellis. An unusual use of the Zoo

was made when the Boardroom was converted into a bedroom to film the cricketer Clive Lloyd as the Mystery Guest in the programme 'A Question of Sport'.

The marketing of the Zoo to over 1200 bus companies and to about 2500 hotels and guest houses continued and it was noticeable that there was an increase in the number of bus parties coming to the Zoo. It is not easy to assess the proportion of hotel guests who come to the Zoo, but we are confident that more people visiting the area are being made aware of the presence of the Zoo.

Within the Zoo catering showed an increased surplus of almost 13%, which is more than expected simply from increased number of visitors and the effect of inflation. The shops showed an increased surplus of 19%.

The sale of guides showed an 8% increase, but the revenue from the water buses showed a slight drop, of 2.5%.

The promotion of the Oakfield Restaurant as a venue for office Christmas parties resulted in 596 extra meals being served during December, giving a welcome fillip to business at the close of the year.

Membership

The number of Members of the Society in voting categories rose during the year by 465 to 1002 at the end of 1986 (+87%) whilst non-voting categories fell by 174 to 29 at the end of 1986. The change in the procedure to join the Society, which had been approved at an Extraordinary General Meeting in October 1985, resulted in many Associate Members transferring to full Membership. Junior Membership rose by 25% from 400 to 501 at the end of 1986.

Two General Meetings were held: an Extraordinary General Meeting in the Town Hall, Chester, on 3rd April and the Annual General Meeting in the MANWEB Building, Chester on 31st May.

Open meetings were held on 15th February, 15th March, 26th April, 11th October, 15th November and 10th December. The speakers at these were, Mr. Brian Hughes on Aspects of Game Ranching and Management in Rhodesia, (now Zimbabwe); Reverend Hugh Linn on Birds of Eccleston; Dr. Brambell on a Review of the Zoo; Mr. Derek Lyon on 'Life as a Zoo Vet'; Mr. Ken Edwardson on a trek 'Beyond the Himalayas', and Mr. Roger Swailes on 'Insect Collecting in Costa Rica'.

Mrs. Eileen Ham, Miss Jean Dixon and Miss Isabel Morton organised the shop staff at these meetings and Mrs. Patricia Brambell, Mrs. Barbara Lowe and Mrs. Maureen Miles organised the teas. Mr. Walter Lean provided a 'taxi' service for members.

During the year a photographic and craft group met on eight occasions and ran a very successful photography competition, organised by Miss Jean Dixon and judged by Miss Isabel Morton, who is a Fellow of the Royal Photographic Society.

On 1st May, an auction was held in the Oakfield in aid of the Trust Fund. It was organised

by Mrs. Liz Bruce and was conducted by Mr. Philip Knapper of Sothebys. £4,038 was raised as a result.

The Society is particularly grateful to all the people who helped to make these occasions a success.

There was a varied list of Junior Members events held through the year. Contact Session – 18th January. Junior Members Annual Conference – 22nd February. Blackpool Zoo Visit – 22nd

Museum & visit to Croxtheth Park Home Farm – 22nd November.

The Christmas Party – 12th December.

Also a small group of twelve Junior Members visited the Farne islands for five days in May, to view the birds and seals.

The Council wishes to thank the senior volunteers who have helped to make these occasions possible, particularly Mrs. Penny Rudd, Mr. & Mrs. Brian Livingstone, Mrs. Jenny Straughan, and Mr. Allan Guy.

Many members and other volunteers have helped the Zoo in a wide variety of ways during the year, from manning the coach party entrance on Bank Holidays to stuffing envelopes and 'debugging' a computer programme. It is not possible to mention all these people but the Council wants them all to be aware that their help has been greatly appreciated by the staff.

Staff

In thanking the staff for the way they have worked together over the year, Council would like to particularly thank those who retired during the year.

Mr. G.F. Williams, Clerk of Works, retired after 39 years service with the Zoo. Mr. Williams was involved in the building and maintenance of most of the Zoo as it now stands. He and his wife, June, built the Aquarium almost on their own and his last achievement at the Zoo was to refurbish the Tiger enclosure and build the new Tiger House.

Mr. Jock Nairn, Senior Gardener, retired after 23 years; Mrs. Hetty Davey retired after 12 years as cleaner in the Oakfield; Mrs. Vera McLeod, Senior Cashier, retired after 11 years and Mrs. Vi Pendergast retired after 6 years service.

We wish them a long and happy retirement.

March. Collecting Stock for the New Childrens Zoo – 24th May. Day Helping A Keeper – 21st June. Junior Members Bazaar – 26th July. Junior Members Barbeque & Moth Trapping Session – 30th August. Llynbrenig Lake Trip – 20th September. Visit to Tatton Park to visit the Farm & see the Red Deer Rut – 18th October. Liverpool Natural History



Council Committees & their Terms of Reference

EDUCATION COMMITTEE

MEMBERS

Mrs. B.J. Jones (Chairman)
Dr. J.S. Madden
Mr. W.F. Padget

Mrs. J. Straughan
Miss B.M. Norgain (Staff)

To advise council on the promotion of education, both formal and informal, as one of the four major objectives of a modern zoo (Conservation, Education, Scientific Investigation and Enlightened Recreation).

ESTATE COMMITTEE

MEMBERS

Mr. N.J.W. Wilson (Chairman)
Dr. D.A.P. Cooke
Mr. A. Guy

Dr. J. S. Madden
Mr. A.L.B. Thomson
Mr. F.S. Carson (Staff)

To advise Council and recommend policy on all aspects concerning the ownership development and maintenance of buildings and land belonging to the Society.

FINANCE COMMITTEE

MEMBERS

Mr. L.D.B. Bryceson (Chairman)
Miss J.P. Dixon
Mr. M.A.R. Johnson

Mr. A.L.B. Thomson
Mr. E.A. Du Cros (Staff)

Recommends financial policy to Council. This includes reviewing pricing policy (in conjunction with the Marketing Committee), revenue and capital budgets, long term forecasts, long and short term borrowing and lending and the allocation of financial surpluses (in conjunction with 'Trust Fund' Committee).

MARKETING COMMITTEE

MEMBERS

Mr. W.F. Padget (Chairman)
Mr. J.H. Howatt
Mr. M.A.R. Johnson

Mrs. B.J. Jones
Mr. N.J.W. Wilson
Mrs. P. Cade (Staff)

Recommends to Council on the promotion of the Zoo as a place to visit and on the products and services offered within the Zoo.

MEMBERSHIP & FUND-RAISING COMMITTEE

MEMBERS

Mr. B. Livingstone (Chairman)
Miss J.P. Dixon
Mr. A. Guy

Mr. J.H. Howatt
Mrs. J. Straughan
Mrs. M. Allsopp (Staff)

Recommends to Council on policy pertaining to Membership, the organisation of meetings and events and the development of fund raising.

SCIENTIFIC COMMITTEE

MEMBERS

Mr. B.H. Coles (Chairman)
Mr. T.G.J. Brightmore
Dr. D.A.P. Cooke
Mr. B. Livingstone
Dr. J.S. Madden

STAFF

Dr. M.R. Brambell (Director)
Mr. K. Brown
Mr. M. Crumpler
Mr. D. C. Dinning
Mr. N. G. Ellerton
Mr. P. James
Miss B.N. Norgain
Mr. P.A. Wait
Dr. R. Wilkinson
Mrs. P. Rudd

To advise Council on the Exhibition and Conservation policy of the Society, to monitor animal husbandry and veterinary care of the animal collection, to advise on Health and Safety.

ASSESSORS

Dr. J. Baker
Dr. J. Charles-Jones
Mr. B. Edwards
Mr. D. Lyon
Mr. N. Walker

STAFF COMMITTEE

MEMBERS

Mr. J.H. Howatt (Chairman)
Mr. B.H. Coles

Mr. A.L.B. Thomson
Mr. N.J.W. Wilson

To advise Council on matters pertaining to employment and personnel management, including staff relations, remuneration and training.

TRUST FUND COMMITTEE

MEMBERS

Mr. B.H. Coles (Chairman)
Mr. L.D.B. Bryceson
Mr. T.G.J. Brightmore

Mr. J.H. Howatt
Mr. A.L.B. Thomson
Mr. E.A. Du Cros (Staff)

Recommends to Council on the disbursement of funds, particularly those arising out of donations, legacies and extraordinary items, with the aim of furthering the Society's objects in education, animal welfare and conservation, and to maintain the zoological, botanical and architectural standards of the Zoo.

The Chairman and the Director are ex-officio members of all committees and are listed under those in which they are regularly involved.

PENSION FUND

TRUSTEES

Dr. M.R. Brambell (Chairman)
Mr. E.A. Du Cros

Mrs. B.J. Jones

To manage the Pension Fund and authorise payments therefrom in accordance with the Pension Fund Trust Deed and the instructions of Council. To advise Council on matters concerning Pension policy.

Consultants

Auditors	Afford Bond, Nantwich.
Bankers	Barclays Bank Plc., St. Werburgh Street, Chester.
Insurance Advisors	Lowndes Lambert UK Ltd., Manchester.
Veterinary Advisors	The Gatehouse Veterinary Hospital, Rossett. University of Liverpool Veterinary Field Station, Leahurst, Neston, South Wirral.
Honorary Medical Advisor	Dr. J.E.D. Charles-Jones, Upton-by-Chester.
Architects	Austin-Smith Lord, Warrington & London.
Engineers	Giffords, Chester & Southampton.
Energy Consultant	Philip Janes.
Land Agents	Denton Clark & Co., Chester.
Agricultural Advisor	Don Park, Shrewsbury.
Legal Advisors General Matters	Bremner, Sons & Corlett (formerly Ouseley Smith & Co.), Chester & Liverpool.
Employment	Mace & Jones, Liverpool.
Company Law	Walker, Smith & Way, Chester.
Computing	D. Kipping Ltd., Stockport. Broadsword Systems Ltd., Bolton.
Pension Fund: Actuaries Fund Managers	Mercer Fraser & Co., Liverpool. Fraser Green & Co., London.

The North of England Zoological Society

Balance sheet as at 31st December 1986

	NOTES	31.12.86		31.12.85	
		£	£	£	£
FIXED ASSETS					
Tangible assets:	9				
Special buildings, enclosures and equipment		1,044,462		1,019,693	
Freehold property		322,108		322,108	
Animals		41,000		61,000	
			1,407,570		1,402,801
CURRENT ASSETS					
Stocks	10	76,400		69,231	
Debtors	11	34,297		39,917	
Balance at bank		3,752		2,522	
Cash in hand		6,808		6,087	
Trust fund bank account	12	34,155		15,542	
		155,412		133,299	
CURRENT LIABILITIES					
Creditors: amounts falling due within one year					
Current instalments due on loan		10,598		12,277	
Bank overdraft (secured)		484,918		549,202	
Trade creditors		52,556		44,775	
Taxes and social security costs		53,780		54,204	
Other creditors		1,169		9,140	
Accruals		22,452		16,522	
		625,473		686,120	
NET CURRENT LIABILITIES			(470,061)		(552,821)
TOTAL ASSETS LESS CURRENT LIABILITIES			937,509		849,980
Creditors: amounts falling due after more than one year					
Loan	14		148,372		184,154
NET ASSETS			£789,137		£665,826
RESERVES					
Income and expenditure account			718,982		630,284
Trust fund	12		34,155		15,542
Capital expenditure grants	13		36,000		20,000
			£789,137		£665,826

Approved by the Council on 27th March, 1987
A. L. B. Thomson — Chairman
M. R. Brambell — Director

The North of England Zoological Society Income and Expenditure Account for the year ending 31st December 1986

	NOTES	£	1986 £	£	1985 £	£
TURNOVER						
Less direct costs of:—	2			248,342		2,135,994
Catering		490,443			425,682	
Souvenir shops		192,206			155,651	
Animal welfare		490,526			448,212	
Garden upkeep		145,061			144,731	
				<u>1,318,236</u>		<u>1,174,276</u>
Indirect costs (including £258,329 Maintenance) (1985 £240,235)				<u>1,165,246</u>		<u>961,718</u>
				<u>1,009,194</u>		<u>1,031,274</u>
Operating surplus/(deficit)	3			156,052		(69,556)
Other income	5			30,056		24,313
				<u>186,108</u>		<u>(45,243)</u>
Interest receivable	6	1,162			1,930	
Interest payable	7	(78,572)			(88,899)	
				<u>(77,410)</u>		<u>(86,969)</u>
Surplus/(Deficit) on ordinary activities				108,698		(132,212)
Extraordinary items	8			(20,000)		49,806
				<u>88,698</u>		<u>(82,406)</u>
Accumulated surplus brought forward				630,284		712,690
Accumulated surplus carried forward				<u>£718,982</u>		<u>£630,284</u>

Report of the Auditors to the Members of the North of England Zoological Society

We have audited the Accounts on pages 14 to 19 in accordance with approved auditing standards.

In our opinion the Accounts, which have been prepared on the basis of the accounting policies set out on page 17, give a true and fair view of the state of the Society's affairs at 31st December 1986 and of its surplus and source and application of funds for the year then ended and comply with the Companies Act 1985.

31st March 1987.
31 Wellington Road, NANTWICH.

AFFORD BOND
Chartered Accountants

The North of England Zoological Society

Statement of source and application of funds

for the year ended 31st December 1986

	1986		1985	
	£	£	£	£
SOURCE OF FUNDS				
Surplus/(Deficit) for the year on ordinary activities		108,698		(132,212)
Adjustment for items not involving the movement of funds				
Depreciation	109,072		91,840	
Loss on sale of fixed assets	298		6,070	
		<u>109,370</u>		<u>97,910</u>
Total generated from operations		218,068		(34,302)
FUNDS FROM OTHER SOURCES				
Sale of tangible fixed assets	2,795		80,877	
Trust fund and capital expenditure grant	34,613		15,325	
		<u>37,408</u>		<u>96,202</u>
Total funds generated		<u>£255,476</u>		<u>£61,900</u>
APPLICATION OF FUNDS				
Purchase of tangible fixed assets		136,934		86,518
MOVEMENT IN WORKING CAPITAL				
Increase/(Decrease) in stock	7,169		(7,618)	
(Decrease)/Increase in debtors	(5,620)		22,271	
(Increase) in creditors	(5,316)		(7,907)	
Decrease in bank loan	35,782		93,468	
		<u>32,015</u>		<u>100,214</u>
MOVEMENT IN LIQUID FUNDS				
Increase/(Decrease) in balance at bank and cash in hand	1,951		(304)	
Decrease in current instalments due on loans	1,679		5,074	
Decrease/(Increase) in bank overdraft	64,284		(124,927)	
(Decrease)/Increase in Trust fund bank account	18,613		(4,675)	
		<u>86,527</u>		<u>(124,832)</u>
		<u>£255,476</u>		<u>£61,900</u>

The North of England Zoological Society

Notes to the accounts for the year ended 31st December 1986

1. ACCOUNTING POLICIES

There have been no changes in the accounting policies during the year, other than in (d) below.

(a) Basis of Accounting

The accounts have been prepared under the historical cost convention.

(b) Fixed Assets

The Council is of the opinion that the market value of the Society's land, property and buildings is in excess of the book values and for insurance purposes, the Zoo buildings and house properties are valued at £3877,197 replacement cost.

(c) Property

In accordance with practice adopted in previous years no depreciation has been provided on freehold land or property. It is the Society's policy to maintain its property in good condition, prolonging its useful life and making any depreciation provision immaterial. Repairs and maintenance costs are charged against income in the year as they are incurred.

(d) Special Buildings, Enclosures and Equipment

Depreciation is provided at rates varying between 2% and 25% per annum estimated to write off each asset over the term of its useful life. The rates and method of depreciation are consistent with those used in previous years with the exception of the rates for motor vehicles and office equipment which have been increased. The effect of the additional depreciation arising from the change in 1986 was £13,643.

(e) Animals

No valuation is made of the animal collection at the end of each year. Purchases and sales appear in the accounts as a revenue item in the year in which they arise.

The amount of £20,000 has been written off this year to bring the net book value at 31st December 1986 to £41,000. It is intended to write off a further £20,000 each year for the next two years to bring the net book value at 31st December 1988 to £1,000.

(f) Stocks

Valued on a basis consistent with that used in previous years at the lower of cost or net realisable value.

(g) Pensions

The Society operates a pension scheme covering the majority of employees, and contributions are charged in the accounts as payments are made. Contributions by employees and by the Society are held in trustee-administered funds completely independent of the Society's finances.

(h) Property Sales

Profit on sales of property consists of the difference between the net amount realised and the sum of cost and subsequent additions and is reported as an extraordinary item.

2. TURNOVER

Turnover represents cash and invoiced amounts of admission charges, goods sold and services provided (stated net of Value Added Tax).

The turnover is attributable as follows:—

	1986	1985
	£	£
Admission charges	1,379,789	1,191,155
Catering receipts	684,525	597,792
Souvenir receipts	297,161	243,410
Motor boat trips	31,618	32,403
Zoo guides	55,939	51,758
Members' subscriptions and entrance fees	11,845	6,338
Sundry income	22,605	13,138
	<u>£2,483,482</u>	<u>£2,135,994</u>

3. OPERATING SURPLUS/DEFICIT

	£	£
This is after charging:		
Auditors remuneration	4,000	3,800
Depreciation (other than animals) (see Note 1)	109,072	91,840
Loss on sale of fixed assets	298	6,070
Hire of equipment	4,467	4,458
	<u>118,037</u>	<u>106,168</u>

4. STAFF COSTS

	1986 £	1985 £
Wages and salaries	1,071,867	962,800
Social Security costs	93,803	94,479
Other pension costs	32,278	30,723
	<u>£1,197,948</u>	<u>£1,088,002</u>

The average number of employees during the year was made up as follows:—

	1986		1985	
	Permanent	Temporary	Permanent	Temporary
Administration	22	2	23	2
Maintenance and gardens	44	11	46	6
Keeping	47	1	46	1
Catering and shops	18	26	17	27
	<u>131</u>	<u>40</u>	<u>132</u>	<u>36</u>

5. OTHER INCOME

	1986 £	1985 £
Zoo property rents	11,764	11,676
Zoo farm rents (net)	18,292	12,637
	<u>£30,056</u>	<u>£24,313</u>

6. INTEREST RECEIVABLE

	£	£
Bank deposit and money market interest	£1,162	£1,930

7. INTEREST PAYABLE

	£	£
Bank	55,646	57,085
Other loans not wholly repayable within five years	22,926	31,814
	<u>£78,572</u>	<u>£88,899</u>

8. EXTRAORDINARY ITEMS

	£	£
Extraordinary income:		
Profit on sale of property	—	69,806
Extraordinary charge:		
Amount written off stock of animals	20,000	20,000
Net (charge)/income	<u>£(20,000)</u>	<u>£49,806</u>

9. TANGIBLE FIXED ASSETS

	Freehold Property	Building & Enclosures	Machinery & Equipment	Animals	Total
COST					
As at 1.1.86	322,108	1,613,449	420,785	149,685	2,506,027
Additions	—	113,261	23,673	(see below)	136,934
Disposals	—	—	(6,536)	—	(6,536)
As at 31.12.86	<u>£322,108</u>	<u>£1,726,710</u>	<u>£437,922</u>	<u>£149,685</u>	<u>£2,636,425</u>
DEPRECIATION					
As at 1.1.86	—	779,120	235,421	88,685	1,103,226
Provided during year (see note 1(d))	—	65,021	44,051	20,000	129,072
Disposals	—	—	(3,443)	—	(3,443)
As at 31.12.86	<u>£ —</u>	<u>£844,141</u>	<u>£276,029</u>	<u>£108,685</u>	<u>£1,228,855</u>
Net book value at 31.12.86	<u>£322,108</u>	<u>£882,569</u>	<u>£161,893</u>	<u>£41,000</u>	<u>£1,407,570</u>
Net book value at 31.12.85	<u>£322,108</u>	<u>£834,329</u>	<u>£185,364</u>	<u>£61,000</u>	<u>£1,402,801</u>

Animal purchases of £10,021 (1985 £28,638) and sales of £14,853 (1985 £33,878) have been treated as revenue transactions in 1986.

10. STOCKS

	1986	1985
	£	£
Goods for resale	54,146	49,881
Consumables	22,254	19,350
	<u>£76,400</u>	<u>£69,231</u>

11. DEBTORS

Trade debtors	6,793	22,229
Other debtors	11,463	14,258
Prepayments and accrued income	16,041	3,430
	<u>£34,297</u>	<u>£39,917</u>

12. TRUST FUND

	1986	1985
	£	£
Balance at 1.1.86	15,542	20,217
Adoptions	29,222	
Less Transferred to animal foods	<u>29,222</u>	
		(226)
Sponsorship	5,562	9,471
Donations and legacies etc.	29,051	6,080
Transfers to capital expenditure grants	(16,000)	(20,000)
Balance 31.12.86	<u>£34,155</u>	<u>£15,542</u>

13. CAPITAL EXPENDITURE GRANTS

	1986	1985
	£	£
Balance at 1.1.86	20,000	—
Transfers from trust fund	16,000	20,000
Balance 31.12.86	<u>£36,000</u>	<u>£20,000</u>

14. LOAN

	1986	1985
	£	£
Amounts repayable within five years	42,392	49,108
Amounts repayable after five years	105,980	135,046
	<u>£148,372</u>	<u>£184,154</u>

The current portion of the loan amounting to £105,980 is shown in the current liabilities.
The loan is secured on the freehold property.

15. SHARE CAPITAL

The Company is limited by guarantee and has no share capital. Members of the Company have guaranteed the liabilities of the Company to the extent of £1 each.

16. STATUS

The Company is registered with the Charity Commission No. 306077 and no taxation liability (other than VAT) arises on income.

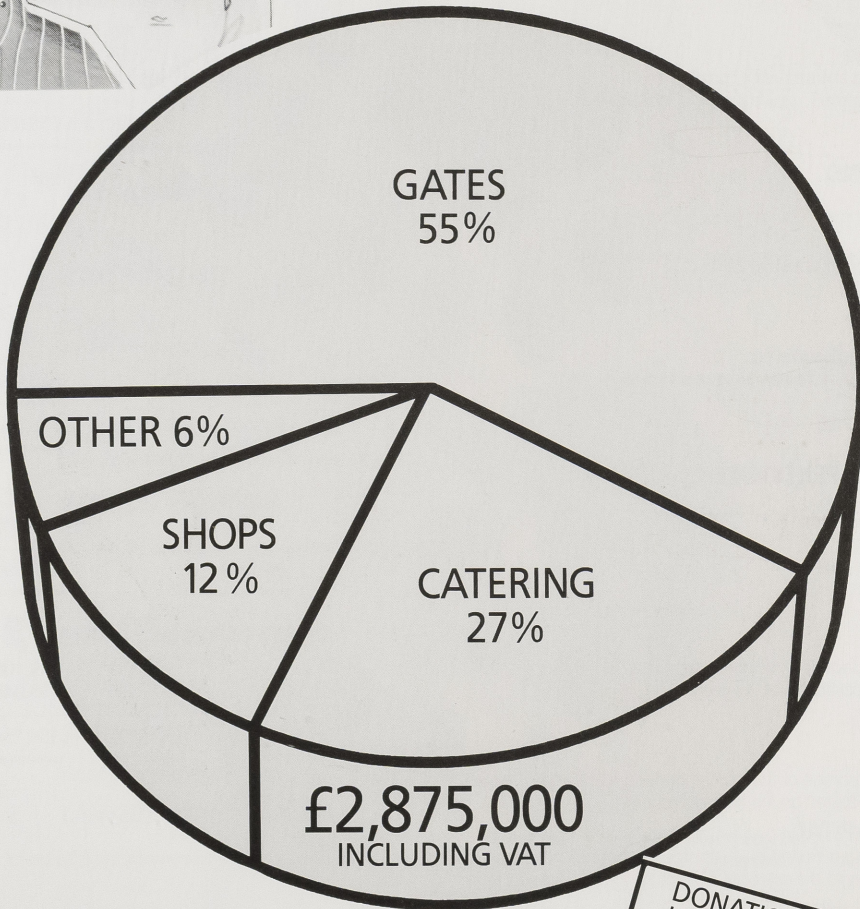
17. CAPITAL COMMITMENTS

	1986	1985
	£	£
The estimated amounts of commitments for future capital expenditure are:		
Under contracts	26,746	1,600
Authorised by the council but not contracted	—	—
	<u>£26,746</u>	<u>£1,600</u>

INCOME



IT COSTS US
£3.00 EACH TO COME
INTO THE ZOO.



ADOPTIONS £2

DONATIONS,
LEGACIES ETC **£34,600**

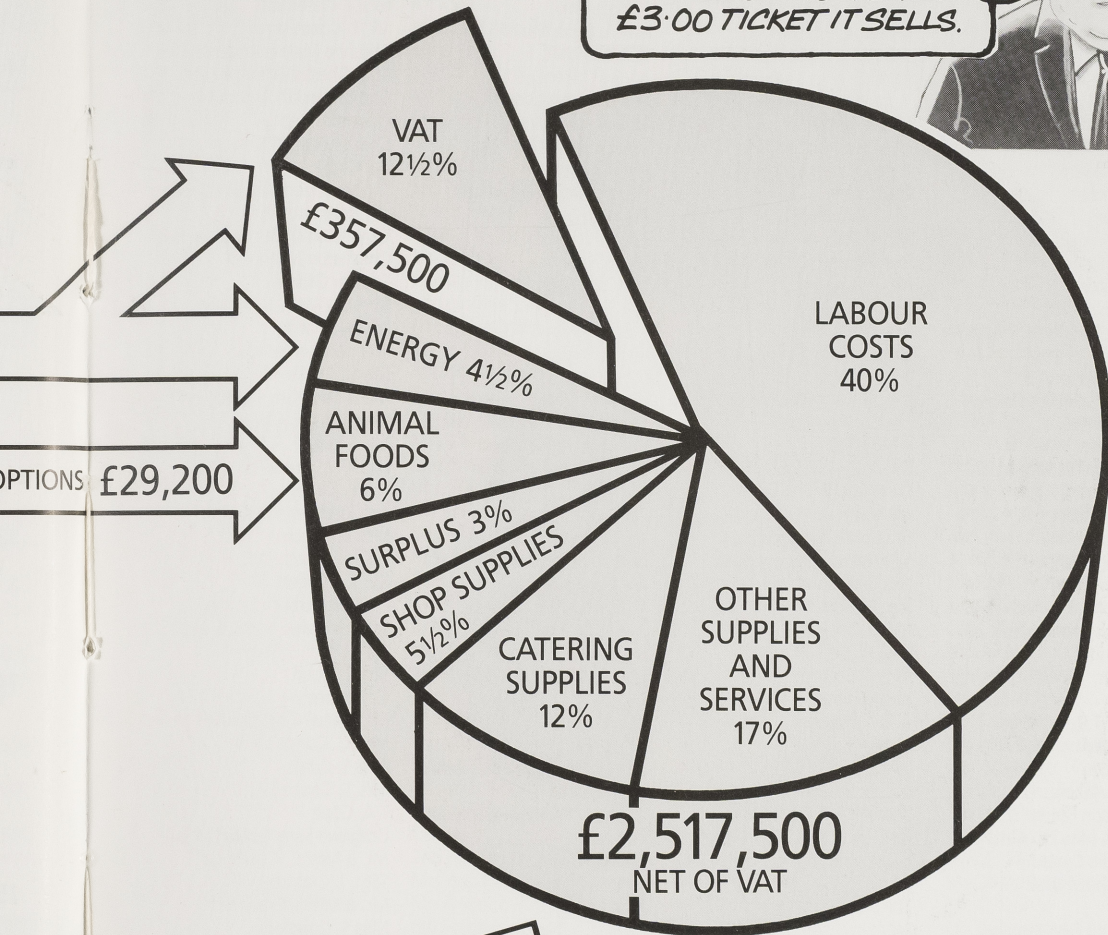
NUMBERS	ADULTS	CHILD/OAP
NORMAL VISITORS	368,914	183,960
PARTY VISITORS	72,658	93,552
STUDENTS/SCHOOL CHILDREN WITH ZOO TEACHING	2,073	11,834
	443,645	289,346
	732,991	

FUNDS FOR DEV

EXPENDITURE



BUT THE ZOO ONLY GETS £2.61 FROM EACH £3.00 TICKET IT SELLS.



	1986	1985
ANIMAL MANAGEMENT	£490,526	£448,212
GARDENS	£145,061	£144,731
MAINTENANCE	£258,329	£240,235
PUBLIC UTILITIES	£131,919	£163,324

List of Adopters as at 31st December 1986

Abbotts Lane School
Miss K.M. Adams
Adapt Advertising
B.M. Adler
Afford Bond
Mrs. J.M. Airey
Mr. G. Akitt
Mr. & Mrs. D. Macaulay Allcock
Miss C.M. Allen
L.W. & D. Allen
Mr. R. Allen
3rd Allerton Cub Pack
Miss E. Allwood
Mrs. P. Alston
Alt Jnr. School, CL.3
The Altrincham Prep. School for Boys
L. & M. Anderson
St. Andrew's Beaver Colony
Ms. M.H. Ansell
Appleton Park W.I.
1st Appleton (St. Monica's) Brownies
S. & J. Appleton
Miss. L. Apter
Argoed High School
Mr. S. Armstrong
S. Armstrong & C. Frith
C. & D. Armstrong-Liles
Arnold School
Ms. J. Arter
J. Ashton
Mr & Mrs. T.R. Ashton
Mr. G. Atherton
Miss C. Atkin
Miss U.M. Atkin
The Atkinson Family
Mrs B.K. & Miss J.P. Austin
B.B.C. Radio Cymru
Mr. Grimshaw, B.U.P.A.
Hospital
1st Backford & Mollington Guides
Mr. J. Badham
C. & S. Bailey
Mr. S. Baillie
Mr. F.A. Baldwin
L.M. & P. Ballard
Mr. J. Banks
Ms. V. Barker
Miss K. Barlow
K. & B. Barnaby
Mr. R.K. Barnard
Mr. N. Baron
A. & J. Baum
Mr. B. Baxter
The Beard Family
The Beaver Family
S. & N. Beazley

Bedford High School
Mr. S.D. Bee
Beech St. C.P. School
Beeston Outdoor Education Centre
R. Benn & J. Graham
Mr. A. Bentley
The Beresford Family
G.P. & P. Bergin
Ms. J. Berry
Mr. P.F.A. Berry
Mr. R. Berry
3rd Biddulph Girl Guides
Mrs. C.S.J. Bielby
Miss G. Bigby
Miss C. Birks
Miss N.H. Binns
Mr. O.J. Bird
Birkby Infants & Nursery School
Miss G. Birkenhead
R.M. Black
Mr. A. Blackledge
Dr. & Mrs. A.F. Blakey
4th Bollington Brownies
5th Bolton Scout Group
56th Bolton Brownie Pack
Mrs. J.M. Bond
Ms. M. Booth
Mr. D. Boothby
Miss. T. Bonsall
Miss R. Botham
Miss D. Boucheray
A. & T. Boucher
Miss D. Boucher
Miss S.M. Boulton
Miss K. Boulter
Bowden Preparatory School
Mrs. J.A. Bowen
E.L. Bowley
Mrs. C.P. Boyce
The Boydell Family
36th Bradford Sth. Wibsey
Meth. & 60th Bradford Sth. Cubs
Miss A. Brady
L. & M. Bragen
Mrs. D.J. Brailsford
Dr. & Mrs. M.R. Brambell
Miss J.E. Bramhall
Mr. J.M. Breeze
Miss A.J. Briggs
Mrs. A. Brindle
Mr. & Mrs. C. Bristow
British Industrial Sand Ltd.
Mrs. L. Broadbent
Mr. & Mrs. A. Broady
Mrs. E.M.A. Broekhoff
C. & J. Brookbank
S. & M. Brookbank

The Brookfield Eagle Ranger Unit
Mrs. L. Broomhead
Miss J. Brooks
M. & M. Brooks
S. J. & L. Brothwood
Miss A. Broughton
Mr. J.S. Browning
Mr. A. Brown
Miss C. Brown & Friends
C. & J. Brown
Ms. G. Brown
Miss G. Brown
Mr. I.D. Brown
Mrs. J. Brown
J. & T. Brown
Mr. R. Brown
S.J. Brown
Mr. K.M. Bryan
Brynback District Cub Scouts
Bryn Coch P. School
Mrs. S. Buckle
Miss C. Buckley
1st Buckley Brownies
Mr. D. Bull/Mrs. R. Bull
Miss A. Burford
Mr. A. Burge
C. Burlinson
Burton Manor College
Mr. K. Butcher
Miss L. Butcher
Mr. & Mrs. J.C. Butler
Mr. P. Butters
Mr. R.V. Butters
Buxton Area Education Office
Miss B. Byron
C.A.D. 16, N.W.G. Computer Services
Miss D. Callan
Miss G. Callan
Mrs. Z. Callister
E.Md. Cameron
Mr. S.J. Cannon
The Cargill Family
Miss B. Carney
Mr. & Mrs. J. Carney
Mr. G. Carruthers
Mr. D.M. Carter
Mr. J. Carter
Castlehill Community Playgroup
Mrs. P. Cate
Mr. G. Catlow
Miss G. Catton
Miss H. Catton
Miss R. Catton
Mr. G. Caudwell
The Cave Family
Mrs. J. Chapman

The Chase School of Dancing
Mrs. J. Cheetham
Mr. P. Cheetham
Cheshire Marine Aquarists
18th Chester Brownie Pack
Chester Health Authority/Pharmacy Dept.
Chester & North Wales Cat Club
The Most Hon. The Marchioness of Cholmondeley
Christleton Under 5s Playgroup
Christleton Mother & Toddler Group
Mrs. D. & Miss J. Chrystie
Miss N. Clarke
Mrs. N. Clarke
Miss J. Clarke
Mr. & Mrs. K.A. Clayton
Mr. & Mrs. E. Clegg
Mr. J. Clegg
Mrs. P.V. Coates
J. & R. Cobey
1st Coedpoeth Beavers
Mrs. E. Coggin
Colas Products Ltd.
Mr. S.J. Collett
1st Comberbach Guides
1st Congleton Scout Group
1st Connah's Quay Scout Group
C. Conneely
Mr. & Mrs. C.M. Connell
Miss C. Constantine
Miss S. Cook
Mrs. L. Cooke
T.A. Cope
Cotgrave Summer Playscheme
Mr. & Mrs. C. Cowburn
SSgt. J. Crabtree
Mr. & Mrs. J. Crawford
Miss S. Crawford
Mrs. D. Cresswell
L. & S. Cresswell
Crest Hotel
Miss M. Critchley
Mr. J. Crosbie
Cross Hall. J.M. School
Crossgates C.P. School
Mr. N.S.J. Crossley
A. & B. Crossman
2nd Crosstown Brownies
Mr. J. Crowder
Miss E. Cruickshank
A.M. & N. Cunningham
Miss K. Cushing
D.H.S.S. Manchester (Rusholme) I.L.O.
D.H.S.S. Rossendale

Mr. A. Dabbs
Danum School
R. Darling & B. Stanlake
Mr. J. Davie
Miss E.M. Davies &
Miss I. Davies
Miss J.M. Davies
S.D. & A. Davies
Miss S.M. Davies
Mr. M. Davies
Mrs. H. Davis
7th Davyhulme Brownies
Miss M.E. Dawson
Mr. C.F. Dawson
Miss A.J. Draycott
Miss M.J. Deadman/K. &
P. Smith
Dean Row C Jnr. School
A. & K. Dean
Mrs. M. Dean
Dee Banks Playgroup
Deeside C.B.S.
L. & E. Deighton
Mrs. C. Denton
Denton West End P. School
Mr. B. Dewhurst
Mr. P. Dibb
Miss A. Dickey
Mr. N.C. Dickson
The Dines Family
Miss H. Ditchfield
F. & S. Dixon
Miss J.P. Dixon
Miss G. Dockweiler
Mrs. J.S. Dodd
C. & L.K. Doherty
Dolland & Aitchison
Mr. C. Dooley
Miss M. Dorey
The Dowling Family
Miss A.J. Draycott
Miss K. Drewett
Ms. J. Driscoll
Mrs. E.F. Driver
5th Dronfield (Hilltop) Beaver
Colony
Mr. & Mrs. G. Droop & Family
Duddon Playgroup
Mrs. M. Dunley
A. & J. Dunnett
Dr. & Mrs. D.A. Dunnett & Boys
J. & P. Durkin
Mr. Joe Dwan
Mr. J. Dyett & Sandra O'Neill
4th Eastham Brownies
Mrs. P.A. Eardley
Miss C.M. Early
Miss C. Eaton
Mrs. S. Eardley & Miss F.
Dunbar
Mr. & Mrs. J. Eagles
Miss J. Edwards
Miss L.F. Edwards

Mr. D.K. Edwards
Mr. H. Edward
Mr. & Mrs. D.K. Elder
8th Ellesmere Port Cub Scout
Packs
Mrs. S. Ellis
Mrs. J.J. Elliott
Mr. J. Ellison
Mr. S.K. Ellison
1st Elton Brownie Pack
2st Endon Brownies
Endon Hall P. School
Mr. J. Esplen
Mr. P.M.G. Eustance
Mrs. B. Evans
L.J. & H.M. Evans
Mr. N. Eyles
Fairway Primary School
Falcon View S.E.C.
Mr. R. Fallowfield
Ms. J. Fantes
Miss A. Faulkner
Miss L.M. Faux
Mr. D.J. Fearn
Mr. & Mrs. Fielden & Clare
Miss P.A. Fielden
Mrs. H.M. Finch
Mr. T. Finkill
Miss L.V. Firth
Miss S. Firth
R. & M. Fisher
Ms. J. Fishwick
Dr. J. Flack
Mr. J. Forbes
Mr. P. Forbes
Ford Motor Co.
Mr. T. Onslow
Form IV Forest School
Richard Foster
E. Francis & C. Baker
1st Frankby-Greasby Beaver
Colony
2nd Frankby Brownies
Mrs. E.R. Franks
Mr. & Mrs. P.J. Frodin
6th Frodsham Brownie Pack
Dr. P.M. Frost
Miss T. Fry
P.A. & D. Fulton
Mr. & Mrs. G.J. Gadd
Miss S. Gardner
1st Gatley Brownies
Mrs. R. Gatley
Gawsworth W.I.
Mr. D. Gee
George Fox School
L. & E. Giblin
Mr. E. Gibson
Miss V. Ginn
Mr. E. Gladstone
D. & A. Glynn
Miss R. Goad
Mr. M. Good

Mr. P. Goodall
Mr. T. Goodman
Mrs. V. Goodman
D. Gordon
1st Gosforth Cumbria Beavers
D. & S. Gosmore
G.N.P. & H. Graham
Granada TV Ltd "Scramble"
Mr. K. Gravell
V. & A.G. Gray
Mrs. M. Hawkins
Mr. M.F. Gray
Greasby Methodist
Sunday School
Mrs. N. Greasley
2nd Great Sutton
Guide Company
Mr. & Mrs. A. Green
Class 5 Greenfield C.P. School
Mrs. O.M. Griffin
Miss M.F. Griffith
The Griffiths Family
Mr. & Mrs. G. Griffiths
Miss L. Griffiths
Mrs. S. Grimshaw
The Grove School
The Guest Family
2nd Guilden Sutton Brownies
The Gunson Family
S. & S. Guy
Mrs. L. Hadfield &
Mr. R. McDonald
O. & T. Haft
Mr. D. Hagan
Mr. J. Hake
Mr. C. Hall
Mr. J.R. Hall
Mrs. S.H. Halstead
Mr. & Mrs. M. Hamby
Mr. M. Hamer
Mr. R.D. Hampson
A. Hannaford
Mr. T. Harinam
Miss J. Harding
Mr. J.D. Hardwick
Mrs. A. Hargreaves
Mrs. H.M. Harper
Mr. & Mrs. S.W. Harris
Mr. & Mrs. W.F. Harris
Miss E. Harrison
Miss K. Harrison
Mr. & Mrs. Hart
Mr. J.D. Hart
The Haslam Family
Haslington Mother &
Toddler Group
Hawarden High School
Hawarden Infants School
Hawarden W.I.
Mrs. B. Hawkes
Miss S. Hawkin-Harris
Mrs. J. Hawthorn
P. & M. Hayes
Miss N. Haywood

Mrs. C. Heenan
Miss L. Hellmich
E. & V. Henderson
Mr. N. Henney
Mrs. K.A. Henshall
Miss L. Henson
Miss M.L. Hesketh
8th Heswall Brownies
Heygarth Jnr. School
Nature Club
A. Hibbert
Miss A. Hickenbottom
Mr. D. Higginbottom
J. & C. Hidden
Mrs. J.E. Hilditch
Mr. R.W. Hill
Mr. G. Hilton
Miss J. Hirst
Miss D. Hobson
Miss D. Hodgkiss
Miss N. Holbrook
J. & A. Holy
Mr. T.L. Holmes
J. Holt & P. Thomas
Mrs. A.G. Hood
Horns Mill C.P. School
Mr. & Mrs. E. Hoskins
The Howatt Family
Mrs. A. Hubbard
Miss E.J. Hudson
Miss J.M. Hudson
Miss P. Hudson
Miss D. Hughes
Mrs. D.A. Hughes
Miss R. Hughes
Mr. R.G. Hughes
Mr. V. Huglin
Mr. & Mrs. M.C. Humphreys
Mrs. A. Hunter
Huyton College Prep. School
Mr. D. Hyde
Miss. I. Ideson
A. & G. Impey
Mr. D. Jacobs
Mr. C. Jardine
Mr. C.D. Jenkins
Miss H. Jewell
L. Johnson
Miss R. Johnson
Mrs. S. Johnson
Miss V. Johnson
Mr. T.G. Johnston
Miss A. Jones
Mrs. C. Jones
C. & K. Jones
Miss J. Jones
J. & L. Jones
K. & Q. Jones
Miss L. Jones
Miss M. Jones
Miss M.E. Jones
Miss R. Jones
Mrs. S. Jones
Mrs. S.P. Jones





Interact
 Mr. & Mrs. W.G. Jones
 Miss D. Kendall
 Mr. & Mrs. A. Keeling
 Mr. L. Kellock
 Mr. & Mrs. D. Kelly
 Miss L. Kenyon
 Dr. A.M. Khan & Family
 Miss C.M. Kimpton
 Mr. D.J. King
 Mr. I. & Miss L. King
 The Kings School Biology Dept.
 1st Kingsley Cub Scouts
 Miss C. Kirham-Smith
 E. & F. Kirwan
 Mrs. D. Knapp
 Mr. G.P. Kontzle
 Mr. R. Lamb
 Mr. P.W. Lamb
 Mr. & Mrs. I. Lancaster
 E.V. Large
 D. R. & T. Latham
 Mr. & Mrs. A. Leafe
 J. & D. Leah
 Mr. R. Leat
 Mr. & Mrs. W.E. Leathart
 Miss B. Lee
 F. & A. Lee
 Mrs. J. Lee
 Miss P. Lee
 Mr. & Mrs. N. Leece
 Miss J. Leigh & Mr. D. Marsden
 Ms. A. Lenton
 Mr. D.A. Levermore
 Miss R. Lewis
 Lilleshall C.P. School
 1st Little Sutton Brownies
 The Little School Playgroup
 Mrs. A.I. Lloyd
 R.S. & A. Lloyd
 1st Locking Stumps Brownies
 Mrs. g. Lomas
 6th & 17th Longton
 Guide Units
 17th Longton Parkhall
 Brownies
 Mr. G.J. Lord
 Miss F.E. Lowe
 2nd Lowton Cub Scouts
 Mrs. M.P. Lucy
 Mr. & Mrs. R.S. Lycett
 P. & C. Lynch
 Miss J. Lyon
 Lyons Maid Ltd.
 M.P. Machin
 Miss T. Madeley
 Mr. S.N. Mainwaring
 Mr. P. Mak
 Mr. & Mrs. E. Makin
 The Makinson Family
 Mrs. E. & Miss Makinson
 Mr. K. Mann

Mr. T.C. Manford
 12th Manchester Beavers
 C.T. & K. Marchant
 Marconi Underwater
 Systems Ltd.
 Mr. M. Marsden
 Marshside P. School
 Mr. A. Marrow
 Miss J.E. Martin
 Miss C. Mash
 Miss J. Maskall
 Mr. P.D. Maskall
 Miss A. Massey
 Mathematical Colloquium
 of Manchester
 The Mathers Family
 Mr. D.J. Mathews
 Mr. R.H. Matthews
 L. & S. Mathie
 Miss I.G. Matthewson
 G. McCale
 Mr. N.G. McConnell
 Mr. T. McCrindle
 Mr. P. McGrady
 Mr. P. & Mrs. L. McGuire
 Miss L.B. McLaren Todd
 Miss A. McLaughlan
 Miss J.E. McLeavy
 Mr. J. McLeod
 Mr. S. McPeak
 The McVey Family
 Mr. G. Melly
 Mr. & Mrs. S. Menio
 Mersey Vale P. School
 Mr. A.E. Middleton
 Mr. A.J. Middleton
 1st A. Middleton Central
 Brownies
 7th Middleton Central
 Brownies
 Mr. C. Miles
 Mrs. D. Millard
 Mrs. J. Millward
 Mrs. J.P. Mistlin
 Mr. & Mrs. D. Molyneux
 R. Moody & Friends
 1st Moore Cub Scout Pack
 Mr. & Mrs. T.A. Moore
 Mr. G.E.M. Morgan
 S.E. Morgan
 Mrs. J. Morley
 Miss Y. Morris
 G. & A. Mortin
 Mr. T. Morton-Jones
 S.E. Mottram
 Mr. & Mrs. K. Muir
 S. & R. Mullock
 Mrs. E.A.C. Murphy &
 Mr. P.D. Murphy
 J. Murray
 Mr. K. Murphy
 N.W. Securities Ltd.

North West House
 N.W. Securities Ltd.
 Customer Accounts
 N.W. Gas/User Liaison
 Computer Services
 Miss G. Nall & Friends
 1st Nantwich Brownies
 Mrs. D. Nash
 Miss E. Naseem
 R. & J. Nelson
 Neston C.P. School
 Mr. M.J. Neville
 4th New Mills Brownies
 Miss E. Newton
 P. & S. Nicholson
 Mr. & Mrs. R. Nicholson
 & Mrs. R. Burnip
 Miss A.W. Nield
 Mr. P. Nield
 R. & A. Nivison
 M. & F. Nolan
 The Norbury Family
 Mr. M. Norcott
 Miss R. Norcott
 Miss B. Norgain
 M.J. Norris & Friends of Razzle
 Northop Pre-School Playgroup
 Miss J.E. Nott
 Mr. D. Nuttall
 Miss J.A. Ogden
 Mr. S. Oldfield
 Mr. D. Olsen
 Mr. A. Ormerod
 Orchard House C. Infs. School
 D. & F. Orme
 Miss M. Osborne
 Miss A. Owen
 Mr. I. Owen
 P.D.C. Copyprint
 E. & E. Page
 Mrs. Q. Page
 Mrs. D.M. Palin
 Mr. R.J.E. Palmer
 Mr. J. Pammenter
 Rev. D. Pankhurst
 The Panther Owners Club
 R. Parfitt & A. Potter
 Mr. C.M. Parker
 Mrs. A. Parry
 Miss N. Parsons
 Miss S.C. Parsons &
 Miss J.L. Bandi
 Miss E. Payne-Johnson
 Mr. A. Pedler
 Mr. R. Peers
 Mr. & Mrs. S. Pemberton
 Pensby 2nd School Hilbre
 House Girls
 Penygelli I. School
 Mr. A. Percival
 Miss J.L. Phillip
 Mrs. B. Phillips
 Mr. & Mrs. D. Phillips

Mr. A. Pickering
 Mr. H.J. Pickett
 Mr. M. Pickup
 J. & S. Pickwick
 M. & A. Pierce
 Mr. N. Pittman
 Miss J. Plant
 Miss J.V. Platt
 The Pleasure Dome
 Miss C.L. Plummer
 K. Podmore & S. Lancaster
 Miss C. Pollock
 Mrs. L. & Miss H. Poole
 Mr. & Mrs. J.A.M. Pope
 Miss S. Potts
 1st Poulton Brownie Pack
 Dr. & Mrs. D.W. Preston
 Mrs. L. Price
 Mr. N. Price
 Miss S.J. Price
 Priestly 6th Form College
 Mr. C.J. Prince
 Mrs. C. Pringle
 Mr. K.J. Pugh & W. Pugh
 Mr. J.L. Pyke
 The Queen's School Form LVA
 Queen's School Jnrs.
 Needham House
 Ms. S. Quinn
 Raddcliffe C.J. School
 Mr. E.C. Raeburn
 I. Rafferty
 Mr. R.F. Ramsbottom
 The Ramsden Family
 Mr. D. Randles
 Mr. L.R. Rankin
 Ranworth Sq. J.M.C.P. School
 Class 5
 Miss V.K. Raynor
 Mrs. M.M. Reading
 Red Rose Motors
 Mr. D. Rees
 Mrs. H. Reid
 Miss N. Reid
 The Reppion Family
 Mr. C. Revie
 Mr. J.L. Rhodes
 Mrs. P.E. Rice
 M. & N. Richards
 M. Richards
 Ms. B.A. Riddell
 Miss I. Rigold
 Mrs. M. Riley
 Mr. P. Rimmer
 Mr. K. Rimmer
 A. & C. Rising
 Mr. & Mrs. W. Roache & Verity
 Mrs. D. Roberts
 Miss E. Roberts
 Mrs. I. Roberts
 Mrs. J.S. Roberts
 N. & A. Roberts



Mr. R. Roberts
S. Roberts-Jones
Mr. C. Robinson
Mr. H.M. Robinson
P. & C. Robinson
J. Robinson
K. & V. Robinson
Mr. R. & Miss J. Rock
Mrs. M. Rose
Mr. & Mrs. H.Y. Ross
30th Rotherham Chantry Cub
Scout Pack
Mr. & Mrs. A.N. Rothwell
35th Rowallan Cub Pack
Mr. D. Rowland
Mr. T. Rowlands
J. & P. Rowlinson
Mr. M. Rowlinson
D.N. Round
Dr. T.A. Ryan
Mr. D. Ryder-Barratt
St. David's High School
(Owen House)
St. Hilary's School
St. Mary's School
St. Mary's Sunday School
St. Thomas More Catholic High
School Form 3C
Saighton CofE Aided P. School
14th Sale Beaver Colony
Salford I.T. Centre
D. & J. Sanders
Mr. & Mrs. J. Sanig
Mr. R. Saunders
R. & N. Saunders
Mrs. M. Schofield
Mrs. N. Sconce
Miss E. Scott
Miss K. Scott
Mr. T. Scott
Mr. L. Scotland
Mrs. J. Scovell
Miss D. Searle
Mr. & Mrs. S. Seddon
Mr. & Mrs. A. Seed
Mrs. Sellek & Mrs. Taylor
Miss C. Sexton
Misses B. & D. Seymour
Miss C.A. Shakeshaft
Mrs. M. Shakeshaft
Mrs. M.H. Sharp
Mr. A.H. Shaw
Mrs. B. Shaw
Mr. & Mrs. D. Shaw
Mrs. F. Shaw
Mr. K.J. Shaw
Miss S.G. Shawcross
Edward Sheerien School
Sheffield Micro Info
Systems Ltd.
297th Sheffield Cub &
Beaver Scouts

Miss J. Shemilt
J. & J. Shingler
The Shropshire Cats Club
Mr. & Mrs. N. Simms
Mr. J. Simpson & Ms. L. Burke
M. Simpson
Miss K. Sixsmith
Mrs. J. Slater
Miss A. Smith
G. & J. Smith
Mrs. J. Smith
Mr. K. Smith
Mrs. M.E. Smith
P. & J. Smith
Miss S. Smith
S. & S. Smith
Miss I. Snead
Dr. A. Snowden
R. & J. Sollars
Somerville P. School
The Soviet Weekly
Mr. K.H. Spence
Mr. T. Spencer
Miss S. Speyer
Miss G. Spicer
Mr. & Mrs. A.F. Spinks
Miss M. Stafford
Miss F.V. Stanton
Mr. D. Steele
J.M. Stewart
A. & G. Stockton
Miss T. Storey
Stafford Donning Ltd
Miss J.E. Stuffs
Mrs. C. Sturrack
Mr. A. Sturzaker
The Suggitt Family
Miss C.A. Sumner
Mr. F. Sumner
Mr. B. Sumner
5th Sutton in Ashfield
St. Michaels Girl Guides
Mrs. M. Swanson
The Swift Family
Mr. & Mrs. D.P. Sworder
Ms. J.J. Sydall
TAS Entertainments
TSB England & Wales Plc
Distric Office 8
TSB England & Wales
Advance Dept.
TSB England & Wales Plc
Hoole Branch
Mr. C. Taylor
Mrs. D. Taylor
Mr. G. Taylor
Mr. J. Taylor
Mrs. L.B. Taylor
Mrs. V. Taylor
Mrs. G. Teague
Miss R. Teare
G. & L. Tedder

Miss H. Tepper
R. & S. Teiger
A. & A. Thomas
Miss M.J. Thomas &
Miss M. Anderson
Mr. G. Thompson
Mrs. J. Thompson
J. & R. Thompson
Miss S.J. Thompson
Mr. R.G. Thomson
The Thorley Family
Thornton Hough P. School
S. & E. Thornton
Miss S. Threlley
J.D. & L. Tinkler
S. & N. Tissyman
Mr. & Mrs. P. Toulmin
Mrs. M. Townley
Mr. P. Travis
Mr. & Mrs. A. Trevelyan
Truline Building Products
The Tuesday Club
Mr. C. Turner
Miss J. Turner
Mrs. M.E. Tyrer
UB (Biscuits) Ltd. Isleworth
UB (Biscuits) Ltd Manchester
Factory
Mr. W. Ulyyatt
Miss C. Underwood
University College of Wales,
Drama group
Miss M. Upton
2nd Upton Guide Co.
Upton-by-Chester
Horticultural Soc.
Upton C. High School
Mrs. J.M. Vale
Miss D. Vanderpuye
Mrs. C. Varetto
Miss C.T. Veltkamp
Mrs. K. Verrill
Dr. & Mrs. Verbov
2nd Vicars Cross Brownie Pack
Mrs. J. Vickers
Vilaworld
W.W.F. Supporters Club
Birkenhead
Wade Deacon High School 2nd
Yr. Pupils
Mr. E. Wadlow & Dr. A.
Wadlow
& Miss S. Wadlow
Mrs. B. Waight
P.S. & R. Waind
Miss D. Walker
Miss R. Walker
Wallasey Ladybirds Club
Miss J. Wantling
Miss G. Warburton
Mr. T. Ward
Mr. C.J. Wareing

Miss D. Warren
7th Warrington (Shaw Pack)
Cub Scouts
Ms. E. Warrington
Mr. D. Warwick
T. & K. Washburn
K. & J. Waterhouse
A. & T. Watkins
Ms. G. Watson
Miss K. Watson
1st Waverton Brownies
Weaverham High School Form
1AC/Form 3JM/Form 2DM
Mr. & Mrs. J. Webb
The Wellings Family
Mr. M. Wells
Miss T. Whay
7th Whitby Brownies
Whitby C. Comp. School Junior
School
Miss J. Whately
Mr. & Mrs. Whittaker
Mr. S. Wightman
Miss A. Wilbourn
Mr. D.G. Wilcox
Mrs. S. Wilcox Supergang
Mr. S. Wilcox
P. & R. Wilkinson
Willastonhey W.I.
Miss A. Williams
Ms. E. Williams &
Mr. M. Murphy
Mrs. M. Williams
Miss M. Williams
Miss M.E. Williams
Mr. P.A. Williams
R. & R. Williams
Y. & A. Williams
Mr. G. Wilman
Mr. & Mrs. A.D. Wilson
Mr. C. Wilson
1st Windermere Amazons
M.J. & C. Winstanley
Winston Playgroup
Wirral C. Grammar Sch.
Wildlife Club
Miss Nadine C. Wolloughby
Miss A. Wooder
Mr. N. Woods
Mr. K. Woods
Mrs. W.N. Wolley
Miss D.B. Wotton
4th Wrexham Brownies
M. & K. Wright
Mr. D. Wright
Mr. & Mrs. F. Wright
M. Wright
Mr. & Mrs. P. Wright
Mrs. L.M. Wyke
Lady Young
R. & K. Young
Ysgol Gwennffrd School



Staff as at 31st December 1986

ANIMAL DIVISION

Keeping Staff

W. Bailey
 J.T. Bell
 S.A. Blake
 Mrs. A. Davies
 Miss K.E. Davies
 D.S. Dinning
 Miss J. Dodd
 J.J. Fitzpatrick
 A.C. Gooch
 D.I. Haw
 T. Haywood
 R. Hoffman
 P. Howse
 A.B. Hutchinson
 D.W.F. Jones
 M.F. Jones
 C.G. Lavender
 A. Leniham
 D.N. Manning
 Miss I.A. McGeorge
 C.J. MacKenzie
 W.D. McLeod
 R. Merry
 F.M. Molloy
 P.I. Morris
 N.W. Ormerod
 R. Packwood
 Miss B. Ramsay
 T.L. Rowlands
 B.L. Rowley
 P.D. Rowley
 A.J. Smith
 M.J. Spencer
 N. Spooner
 P.A. Stead
 S.R. Williams
 J.A. Willis
 A.R. Woodward
 A. Woolham

Animal Supplies

D. Marsden
 K. Newey

Animal Supplies Officer

J.A.C. Forrest

Other Animal Divisional Staff

K.W. Brown
Herpetologist

M.F. Coupe
Animal Information

M.C. Crumpler
Aquarist

D.C. Dinning
Laboratory Technician

P. James
Assistant Curator of Birds

N.G. Ellerton
Curator of Mammals

Dr. R. Wilkinson
Curator of Birds

P.A. Wait
**Senior Curator
 Head of Division**

ESTATE DIVISION

Maintenance

J.R. Bell
 F.W. Blythe
 I. Blythe
 C.J. Bridges
 D.C. Holder
 P.T. Hutchins
 A. Lennon
 W.A. Mayers
 B. McCone
 J.E. Parry
 G.E. Scott
 L.L. Shepherd
 D.A. Toms

Fencing Task Force

D.L. Hughes
 G.R. Hughes
 M. Hughes
 J.A. Jones
 K. Maddock
 W. Shone

Maintenance Foreman

P. Brady

Groundstaff

P. Conde
 K.H. Coriam
 E. Durrant
 R. G. Head
 Mrs. F.M. Hughes
 P. Hughes
 W.T. James
 P. Powell
 J. Whitby
 F. Woodworth

Head Groundsman

H. Cunliffe

Gardens

C.P. Braithwaite
 V. Dodd
 K.N. Done
 R. Duncan
 M. Hargreaves
 P. Harrison
 G. Hewitt
 R.A. Newey
 S.H. Newey
 C. Pritchard
 J.E. Richardson
 H.F. Roberts
 J. Robinson
 F.J. Rowlands
 W.N. Wallace
 C. Williams
 J.D. Wood
 N.P. Wood

Other Estate Divisional Staff

F.R. Morgan
Foreman Gardener

J.G. Johnson
Deputy Head Gardener

E.J. Rudman
Head Gardener

M.S.C. Y.T.S

R. Evans
 J. Middleton

D. York
Senior Supervisor

F.S. Carson
**Estate Engineer
 Head of Division**

MARKETING DIVISION

Catering

Mrs. M. Askew
 Miss W. Gibson
 J. Green
 Miss A. Jones
 Mrs. P. Keay
 Miss A. Livesley
 Miss D. Livesley
 B.G. Lloyd
 Miss L. Needham
 Miss M. O'Sullivan
 Mrs. B. Smith
 A. Viner

Senior Supervisory Staff

Miss A. Burton
 C. Horton
 P.J. Thompson

Shops

Miss J. Bagnall
 D. Emmerson
 P. Morrissey
 Miss G. O'Reardon

Retail Manager

A.S. Rowlands

General Marketing

Mrs. M.M.A. Allsopp
Membership & Adoptions

Mrs. D. Cooke (Party Sales)
 Miss L. Raynor (Party Sales)

Mrs. P. Cade

Media Liaison Officer

Head of Division

Vacant

EDUCATION DIVISION

M.S.C. Programme

G.M. Bells
 E. Brown
 Miss S. Chester

C. Hough
 R. Mann
 Mrs. P. Mitchell
 T. O'Dwyer
 P. Riley
 J. Ritchie
 Mrs. M. Bostock
 Miss A. Bowles
 Miss T. Hogan
 P. Mulvihill
 M. Powleson
 A. Walsh

Society Staff

Mrs. M.E. Jones
 Mrs. M. McManus

Education Officers

Mrs. S. Rucks
 Mrs. B.J. Van Suchtelen
 Mrs. J. Walley

Cheshire County Council

Senior Education Officer

Head of Division
 Miss B.M. Norgain

FINANCE & ADMINISTRATION DIVISION

General

Mrs. D. Coriam
 Mrs. S. Kizka
 Mrs. E.C. Manning
 J. O'Reardon
 G.A. Pollard

Accounts & Cashiers

Miss C. Campion
 Mrs. S. Davies
 Miss S. Meadows
 Mrs. D. Farnell
 Mrs. C.M. Lang
 Mrs. L. Paddock
 Mrs. G. Southern
 Mrs. J. Woolley

Security

T.A. Johnson
Security Officer

Secretarial

Miss P. McKee
 Miss H. Smith

Senior Secretary & Personnel Officer

Mrs. P.A. Rudd

Director's Secretary

Miss J.D. Lunsford

Financial Controller & Deputy Director

E.A. Du Cros

Director

Dr. M.R. Brambell

Staff Association

The purpose of the Staff Association is to liaise with staff and management re: personnel problems and working conditions.

The Committee meet every month, and the Association Chairman has a monthly meeting with the Director to discuss any matters arising. Occasional meetings are held with Zoo Management and, the Association Chairman is invited to attend Council Meetings to discuss items relevant to the workforce.

An Annual General Meeting is held in November.

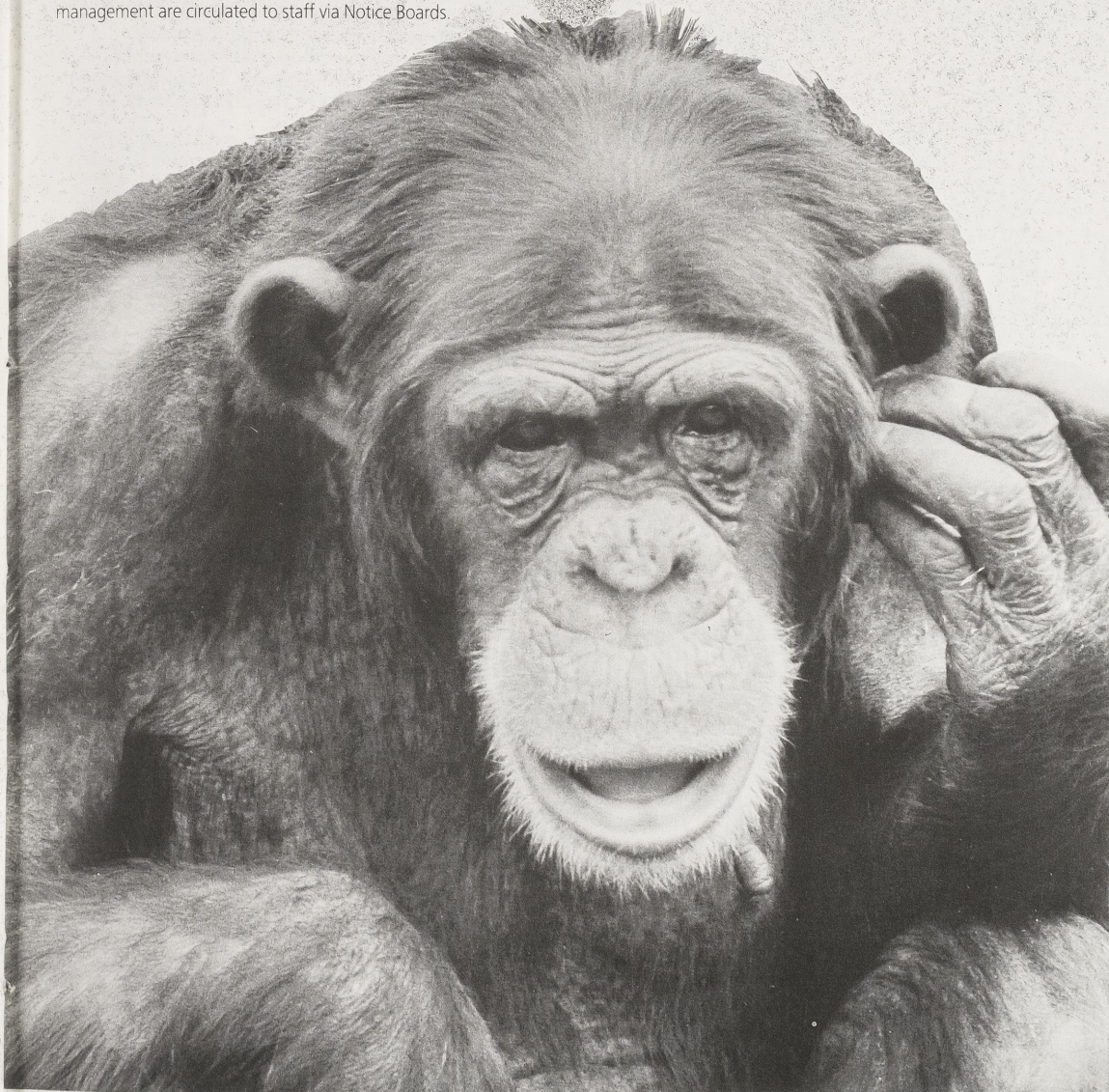
The Association organised the Staff Christmas Party which was held in the Oakfield.

Representatives are elected for 12 months and the Chairman is elected by these representatives.

Minutes of all monthly meetings and the response of management are circulated to staff via Notice Boards.

1986 Committee:—

Mr. F.W. Blythe	Chairman
Mr. N. Ormerod	Vice Chairman
Mr. H. Cunliffe	Groundstaff
Mrs. C. Lang	Establishment
Mr. B. Lloyd	Catering
Mr. F. Rowlands	Gardens
Mr. L. Shepherd	Maintenance
Mrs. M. Allsopp	Minutes



Animal Collection

The seven column accounting system of animal stocks is in line with all other major zoological institutions in the world.

Within each column known male animals are listed under heading -M, female animals are listed under heading -F, unsexed animals and young stock are listed under heading -Y/?

- COLUMN 1 shows stock at the start of the year. (This normally agrees with the stock listed at the close of the year in the 1985 Annual Report, but in a few instances resexing and the detection of earlier minor errors have resulted in correction being made).
- COLUMN 2 shows the stock which came into the collection from outside sources.
- COLUMN 3 shows the additional stock resulting from breeding.
- COLUMN 4 shows stock bred in the Zoo which failed to survive more than 30 days. Although Columns 3 and 4 are appropriate means to recording the breeding performance of many species, they are inappropriate for species which produce large numbers of microscopic young, most of which are unlikely to survive until they are of countable size. In these species, Column 4 is ignored and only surviving countable young are included in Column 3.
- COLUMN 5 shows animals which died or were destroyed for reasons of ill health while in the collection.
- COLUMN 6 shows animals which were removed from the collection, except for reasons of ill-health.
- COLUMN 7 shows the closing stock still in the collection at the end of the year.

Stock at 31st December 1986

	Species	Specimens	Species recorded breeding and rearing	Specimens recorded bred and surviving 30 days
Mammals	99	764	47	182
Birds	181	773	50	242
Reptiles	62	279	7	96
Amphibians	16	42	—	—
Fish	163	2869	—	—
Invertebrates	24	414	—	—
TOTALS	545	5141	104	520



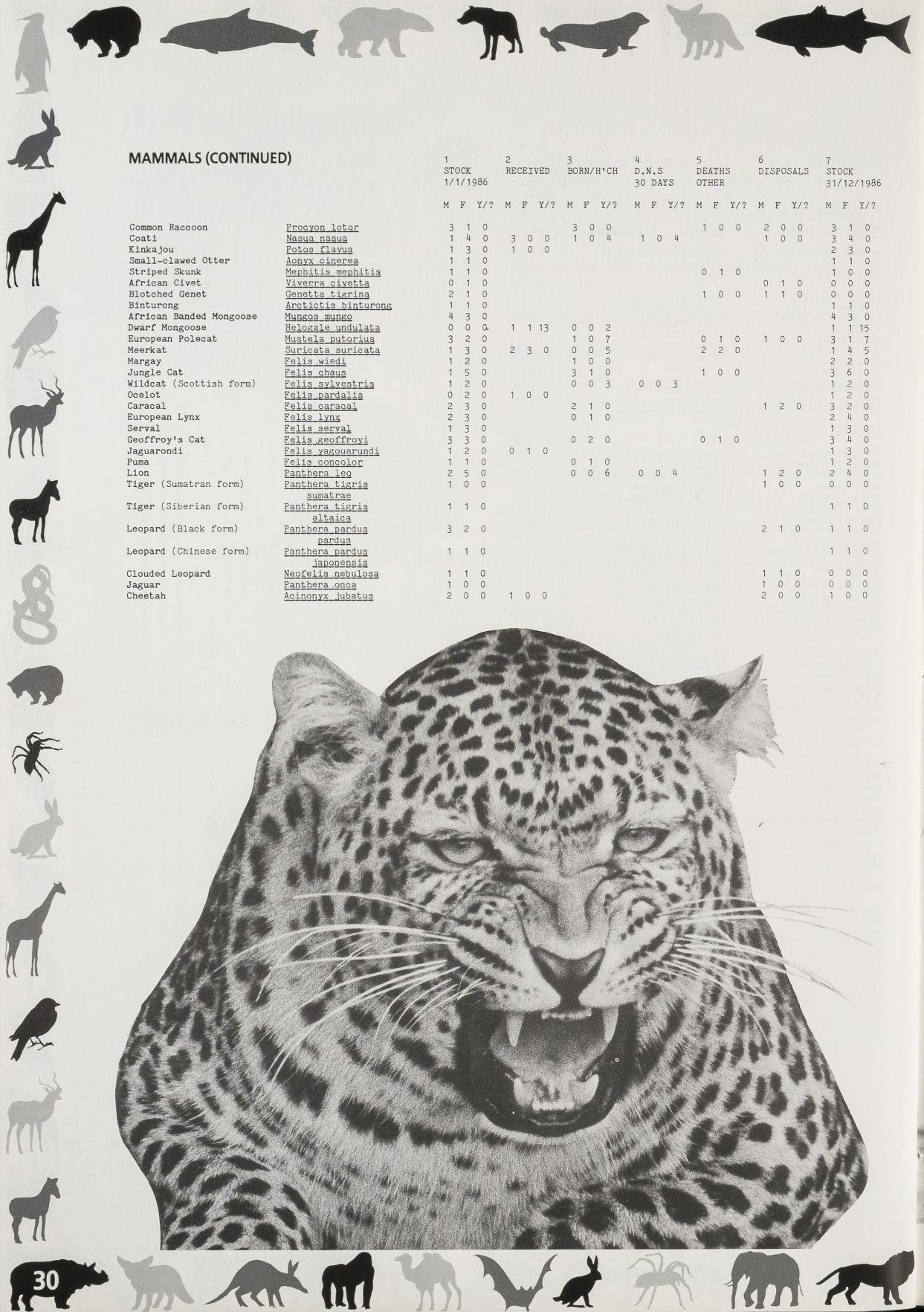
MAMMALS

		1		2		3		4		5		6		7				
		STOCK		RECEIVED		BORN/H*CH		D.N.S		DEATHS		DISPOSALS		STOCK				
		1/1/1986						30 DAYS		OTHER				31/12/1986				
		M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?		
MONOTREMATA																		
Australian Echidna	<u>Tachyglossus aculeatus</u>	1	1	0										1	1	0		
MARSUPIALIA																		
Tammar Wallaby	<u>Macropus eugenii</u>	4	5	0			2	1	0	1	0	0			4	6	0	
Red-necked Wallaby	<u>Macropus rufogriseus</u>	10	8	4	1	0	0	0	7	3	3	3	5	0	0	5	7	4
Western Grey Kangaroo	<u>Macropus fuliginosus</u>	2	3	0	1	0	0	3	0	2	0	0	1	0	0	3	3	0
SCANDENTIA																		
Common Tree Shrew	<u>Tupaia glis</u>	1	1	0	1	1	0			0	1	0	1	0	0	1	1	0
CHIROPTERA																		
Rodrigues Fruit Bat	<u>Pteropus rodricensis</u>	9	5	0			4	0	0	2	0	0			11	5	0	
PRIMATES																		
Slow Loris	<u>Nycticebus coucang</u>	3	2	0											3	2	0	
Ring-tailed Lemur	<u>Lemur catta</u>	13	18	0			3	8	0	1	0	0	3	6	0	12	20	0
White Fronted Lemur	<u>Lemur fulvus albifrons</u>	1	3	0								0	1	0	1	2	0	
Ruffed Lemur	<u>Lemur variegatus</u>	2	1	0											2	1	0	
Lesser Bushbaby	<u>Galago senegalensis</u>	3	3	3			1	1	0	1	1	0			2	1	0	
Common Marmoset	<u>Callithrix jacchus</u>	3	3	3			2	0	0			1	1	0	5	2	2	
Cotton Top Tamarin	<u>Saguinus oedipus</u>	3	3	0			2	2	1	0	0	1	1	0	3	3	0	
White-lipped Tamarin	<u>Saguinus labiatus</u>	1	1	1			3	0	0						4	1	0	
Douroucouli	<u>Actus trivirgatus</u>	1	1	0	1	0	1	1	0						4	2	0	
White-fronted Capuchin	<u>Cebus albifrons</u>	1	1	0									2	0	0	1	0	
Spider Monkey (black face) (form)	<u>Ateles paniscus</u>	5	6	0			2	0	0				2	0	0	5	6	0
Lion-tailed Macaque	<u>Macaca silenus</u>	4	4	0	1	2	0						1	0	0	4	2	0
Barbary Macaque	<u>Macaca sylvanus</u>	4	7	2								0	2	0	4	7	0	
Celebes Macaque	<u>Macaca niger</u>	2	2	0	0	1	0	0	1	0					2	3	0	
Hamadryas Baboon	<u>Papio hamadryas</u>	5	5	0			1	5	0	1	3	0			4	6	0	
Sykes Guenon	<u>Cercopithecus albogularis</u>	3	2	0									1	1	0	3	2	0
De Brazza Monkey	<u>Cercopithecus neglectus</u>	4	4	0			1	0	0				1	0	0	4	4	0
Talapoin Monkey	<u>Miopithecus talapoin</u>	2	5	0	1	1	0	0	0	1			1	0	0	2	6	1
Patas Monkey	<u>Erythrocebus patas</u>	2	3	0			1	0	0						3	3	0	
Chimpanzee	<u>Pan troglodytes</u>	5	12	0	0	1	0	2	1	0	1	0			6	14	0	
Orang utan (Bornean Form)	<u>Pongo pygmaeus pygmaeus</u>	4	4	0	0	1	0						2	1	0	2	4	0
Orang utan (Sumatran Form)	<u>Pongo pygmaeus abelii</u>	3	1	0			0	1	0						3	1	0	
Western Lowland Gorilla	<u>Gorilla gorilla gorilla</u>	1	0	0			0	1	0				1	0	0	3	2	0
RODENTIA																		
Malay Giant Squirrel	<u>Ratufa bicolor</u>	1	0	0											1	0	0	
Fire-footed Squirrel	<u>Funisciurus pyrrhopus</u>	1	2	0											1	2	0	
Prairie Marmot	<u>Cynomys ludovicianus</u>	0	0	150			0	0	40	1	0	50	4	0	0	0	135	
Beaver	<u>Castor canadensis</u>	1	0	0											1	0	0	
Springhaas	<u>Pedetes capensis</u>	1	5	0									1	5	0	0	0	
African Crested Porcupine	<u>Hystrix cristata</u>	2	1	1			3	2	4	1	0	4	2	0	0	3	3	0
Capybara	<u>Hydrochoerus hydrochaeris</u>	1	1	3											1	1	3	
Golden Agouti	<u>Dasyprocta aguti</u>	1	3	3			0	0	1	0	1	0			2	3	2	
Coupy	<u>Myocastor coypus</u>	3	12	12			0	0	15	0	0	5	2	1	1	12	11	1
Mountain Viscacha	<u>Lacridium viscaccia</u>	2	0	0									3	6	0	2	0	0
CARNIVORA																		
Dingo	<u>Canis familiaris</u>	2	1	0											2	1	0	
Arctic Fox	<u>Alopex lagopus</u>	3	2	0						0	2	0	1	0	0	2	0	0
Brown Bear	<u>Ursus arctos</u>	1	2	2											2	3	0	
Polar Bear	<u>Thalarctos maritimus</u>	1	1	0											1	1	0	



MAMMALS (CONTINUED)

	1 STOCK 1/1/1986			2 RECEIVED			3 BORN/H*CH			4 D.N.S 30 DAYS			5 DEATHS OTHER			6 DISPOSALS			7 STOCK 31/12/1986		
	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?
Common Raccoon	3	1	0				3	0	0				1	0	0	2	0	0	3	1	0
Coati	1	4	0				1	0	4	1	0	4				1	0	0	3	4	0
Kinkajou	1	3	0	3	0	0													2	3	0
Small-clawed Otter	1	1	0	1	0	0													1	1	0
Striped Skunk	1	1	0										0	1	0				1	0	0
African Civet	0	1	0													0	1	0	0	0	0
Blotched Genet	2	1	0										1	0	0	1	1	0	0	0	0
Binturong	1	1	0																1	1	0
African Banded Mongoose	4	3	0																4	3	0
Dwarf Mongoose	0	0	0	1	1	13	0	0	2										1	1	15
European Polecat	3	2	0										0	1	0	1	0	0	3	1	7
Meerkat	1	3	0	2	3	0	0	0	5				2	2	0				1	4	5
Margay	1	2	0																2	2	0
Jungle Cat	1	5	0				3	1	0				1	0	0				3	6	0
Wildcat (Scottish form)	1	2	0				0	0	3	0	0	3							1	2	0
Ocelot	0	2	0	1	0	0													1	2	0
Caracal	2	3	0				2	1	0							1	2	0	3	2	0
European Lynx	2	3	0				0	1	0										2	4	0
Serval	1	3	0																1	3	0
Geoffroy's Cat	3	3	0				0	2	0				0	1	0				3	4	0
Jaguarundi	1	2	0	0	1	0													1	3	0
Puma	1	1	0				0	1	0										1	2	0
Lion	2	5	0				0	0	6	0	0	4				1	2	0	2	4	0
Tiger (Sumatran form)	1	0	0													1	0	0	0	0	0
Tiger (Siberian form)	1	1	0																1	1	0
Leopard (Black form)	3	2	0													2	1	0	1	1	0
Leopard (Chinese form)	1	1	0																1	1	0
Clouded Leopard	1	1	0													1	1	0	0	0	0
Jaguar	1	0	0													1	0	0	0	0	0
Cheetah	2	0	0	1	0	0										2	0	0	1	0	0

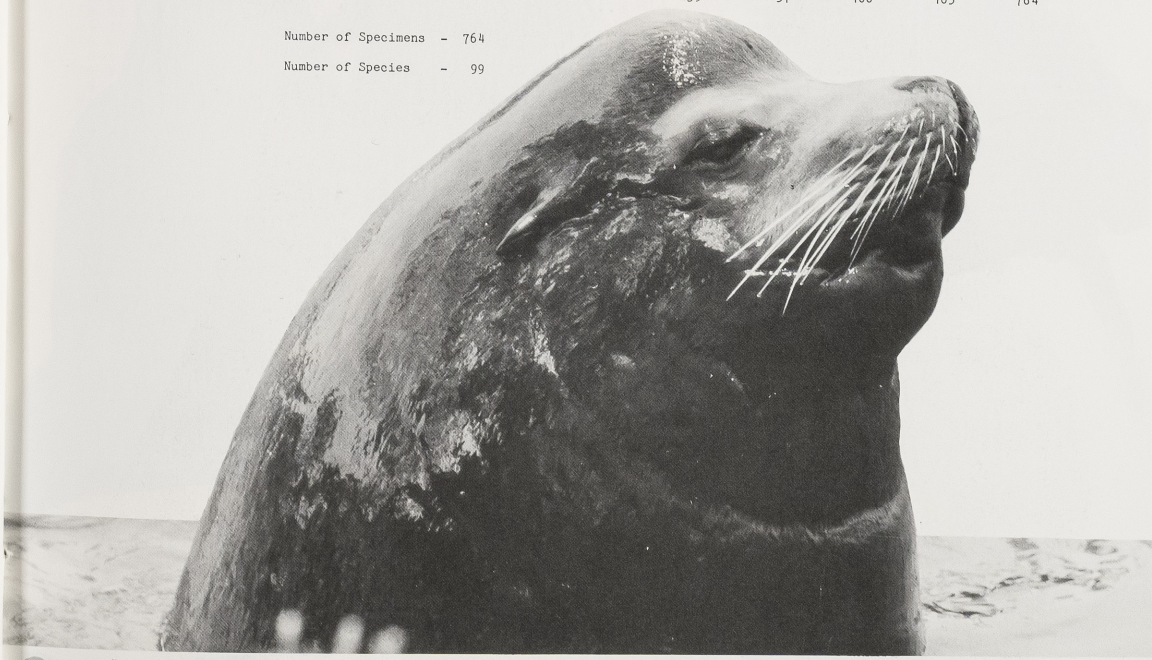


MAMMALS (CONTINUED)

		1			2			3			4			5			6			7		
		STOCK 1/1/1986			RECEIVED			BORN/H'CH			D.N.S 30 DAYS			DEATHS OTHER			DISPOSALS			STOCK 31/12/1986		
		M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?
PINNIPEDIA																						
Californian Sealion	<u>Zalophus californianus</u>	2	4	0				0	1	0				0	1	0				2	4	0
PROBOSCIDEA																						
Indian Elephant	<u>Elephas maximus</u>	1	2	0	0	2	0													1	4	0
PERISSODACTYLA																						
Przewalski's Horse	<u>Equus przewalskii</u>	1	3	0				0	1	0	0	1	0							1	3	0
Common Zebra	<u>Equus burchelli</u>	2	5	0													1	0	0	1	5	0
Zebroid (Horse x Zebra)	<u>Equus (hybrid)</u>	1	0	0																1	0	0
Onager (Persian form)	<u>Equus hemionus onager</u>	2	2	0				0	1	0	0	1	0	1	0	0				1	2	0
Onager (x bred)	<u>Equus hemionus</u>	1	1	0																		
Brazilian Tapir	<u>Tapirus terrestris</u>	2	3	0				1	0	0							1	0	0	2	1	0
Black Rhinoceros	<u>Diceros bicornis</u>	2	1	0	1	0	0				0	1	0	0	1	0	1	0	0	2	2	0
White Rhinoceros	<u>Ceratotherium simum</u>	1	0	0																2	1	0
ARTIODACTYLA																						
Collard Peccary	<u>Tayassu tajacu</u>	4	4	0				0	1	0				0	1	0	1	0	0	3	4	0
Common Hippopotamus	<u>Hippopotamus amphibius</u>	1	1	0																1	1	0
Llama	<u>Lama lama</u>	2	3	0													1	0	0	1	3	0
Guanaco	<u>Lama guanicoe</u>	5	9	0				1	5	0	1	1	0				3	1	0	2	12	0
Bactrian Camel	<u>Camelus bactrianus</u>	1	1	0																1	1	0
Arabian Camel (? hybrid)	<u>Camelus dromedarius</u>	1	1	0																1	1	0
Axis Deer	<u>Cervus axis</u>	6	3	0				1	2	0	0	1	0	1	1	0				6	3	0
Wapiti	<u>Cervus canadensis</u>	1	4	0																1	4	0
Pere David's Deer	<u>Elaphurus davidianus</u>	4	7	0	1	6	0	2	1	0							4	10	0	3	3	0
Reindeer	<u>Rangifer tarandus</u>	5	10	0				2	4	0	1	3	0	0	1	0	4	10	0	5	10	0
Chinese Water Deer	<u>Hydropotes inermis</u>	4	3	0										1	3	0				3	0	0
Giraffe	<u>Giraffa camelopardalis</u>	1	2	0	1	1	0										0	1	0	2	2	0
Eland	<u>Taurotragus oryx</u>	1	5	0				1	3	0	0	1	0							2	7	0
Nilgai	<u>Boselaphus tragocamelus</u>	2	8	0				4	4	0	2	3	0	0	1	0				4	8	0
Ankole Cattle (domestic)	<u>Bos taurus</u>	1	5	0				1	1	0	0	1	0							2	5	0
American Bison	<u>Bison bison</u>	5	7	0				4	2	0	1	0	0							8	9	0
Congo Buffalo	<u>Syncerus caffer nanus</u>	1	2	0													0	1	0	1	1	0
Gaur	<u>Bos gaurus</u>	0	0	0	1	0	0													1	0	0
Red Lechwe	<u>Kobus lechwe</u>	4	14	0	2	0	0	8	5	0	1	0	0	0	3	0				13	16	0
Wildebeeste	<u>Connochaetes taurinus</u>	1	2	0				1	0	0										2	2	0
Blackbuck	<u>Antelope cervicapra</u>	4	5	0				4	5	0	1	0	0	2	0	0	1	0	0	4	10	0
Arabian Gazelle	<u>Gazella gazella arabica</u>	2	4	0	1	0	0	4	0	0	3	0	0	1	0	0	1	0	0	2	4	0

737 56 239 57 106 105 764

Number of Specimens - 764
 Number of Species - 99

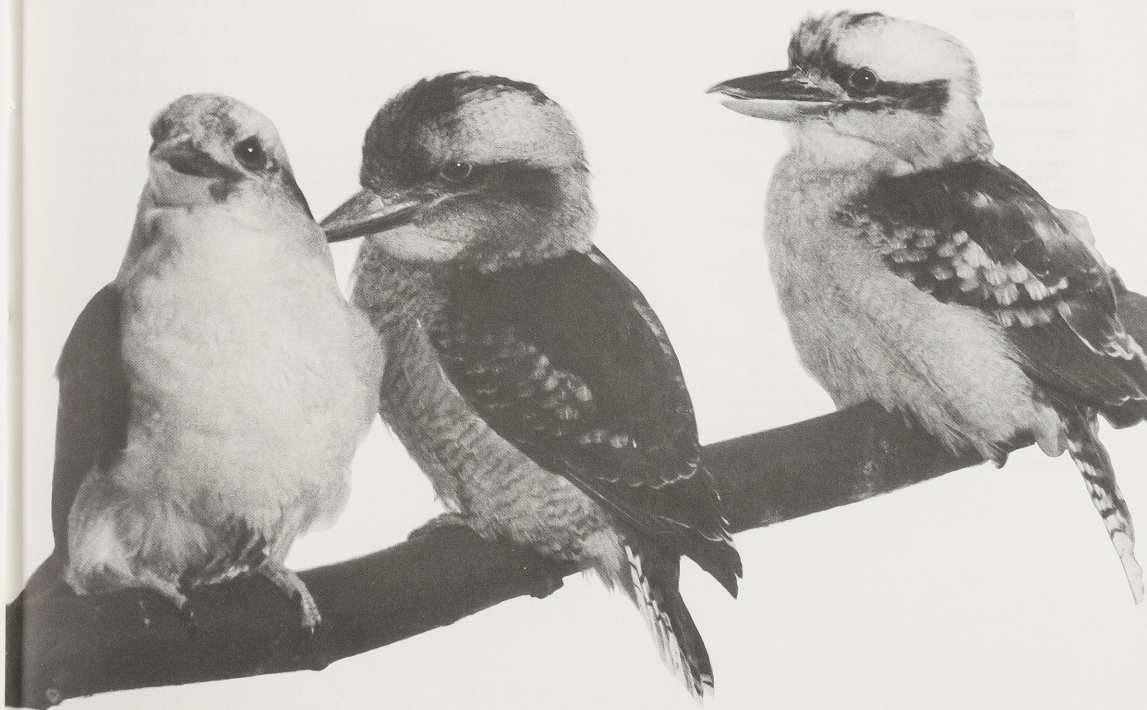


BIRDS

	1			2			3			4			5			6			7					
	STOCK			RECEIVED			BORN/H'CH			D.N.S			DEATHS			DISPOSALS			STOCK					
	1/1/1986									30 DAYS			OTHER						31/12/1986					
	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?
STRUTHIONIFORMES																								
Ostrich							0	0	11	0	0	9				0	0	2	1	1	0			
RHEIFORMES																								
Common Rhea							0	0	8	0	0	5	0	0	1	0	0	7	1	2	0			
CASUARIIFORMES																								
Emu																0	0	1	1	0	2			
TINAMIFORMES																								
Chilean Tinamou							0	0	15	0	0	3	0	0	5	0	0	24	0	0	12			
SPHENISCIFORMES																								
Humboldt's Penguin							0	0	17	0	0	1	0	0	3	0	0	8	9	10	10			
CICONIIFORMES																								
Little Egret							2	1	0							1	0	0	1	1	0			
Night Heron							3	3	0	0	0	5	0	0	4	0	0	1	3	3	0			
White Stork							0	0	0	2	2	0							2	2	0			
Sacred Ibis							0	0	10	0	0	2	0	0	2				0	0	10			
Straw-necked Ibis							1	1	4	0	0	1	0	0	1				0	0	1			
Waldrapp Ibis							0	0	0	0	0	5				1	1	3	0	0	5			
Common Spoonbill							0	0	3										0	0	3			
Chilean Flamingo							6	12	2							1	0	1	5	12	1			
Caribbean Flamingo							11	8	0	0	0	6				0	1	0	11	7	6			
ANSERIFORMES																								
White-faced Whistling Duck							3	4	0	1	0	0							4	4	0			
Fulvous Tree Duck							1	1	0				0	0	4				1	1	4			
Black Swan							1	1	0				0	0	7	0	0	1	1	1	0			
Mute Swan							0	1	0										0	1	0			
Lesser Snow Goose							2	2	2							0	0	2	2	2	0			
Emperor Goose							3	3	0										3	3	0			
Bar-headed Goose							0	1	0							0	1	0	1	0	0			
Ross's Snow Goose							1	1	0										1	1	0			
Barnacle Goose							2	2	0										2	2	0			
Red-breasted Goose							3	3	0	0	1	0	3	1	0	1	0	0	5	5	0			
Hawaiian Goose							3	3	0										3	3	0			
Cereopsis Goose							1	1	0	0	0	1	0	0	1				1	1	0			
Ruddy-headed Goose							1	1	0										1	1	0			
Common Shelduck							2	2	0										2	2	0			
Bahama Pintail							1	2	0							0	1	0	1	1	0			
Chestnut Teal							0	0	0	1	1	0							1	1	0			
Falcated Teal							0	0	0	3	2	0							3	2	0			
Wigeon							1	1	0										1	1	0			
Northern Shoveler							2	2	0										2	2	0			
Red Shoveler							3	3	0										3	3	0			
Laysan Teal							1	1	0				0	0	1		0	0	6	1	1			
Chiloe Wigeon							3	3	0				0	0	3		0	0	3	3	0			
Ringed Teal							1	1	0										1	1	0			
Marbled Teal							0	0	0	3	1	0							3	1	0			
Tufted Duck							3	3	0	2	0	2				1	0	0	0	0	2			
Rosy-billed Pochard							2	2	0	0	0	9				0	0	4	0	0	5			
Red-crested Pochard							2	2	0	0	0	4	0	0	2	0	0	1	0	0	1			
Maned Goose							3	3	0										3	3	0			
Mandarin Duck							14	10	0				1	0	29	0	0	6	0	0	1			

BIRDS (CONTINUED)

		1		2		3		4		5		6		7								
		STOCK		RECEIVED		BORN/H*CH		D.N.S		DEATHS		DISPOSALS		STOCK								
		1/1/1986						30 DAYS		OTHER				31/12/1986								
		M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?						
Carolina Duck	<u>Aix sponsa</u>	3	2	2	0	0	2	0	0	7	0	0	2	0	0	1	0	0	6	3	2	2
White-winged Wood Duck	<u>Cairina scutulata</u>	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0
Hooded Merganser	<u>Mergus cucullatus</u>	1	3	0	5	0	0	0	0	0	2	1	0	0	0	0	0	0	0	4	2	0
Ruddy Duck	<u>Oxyura jamaicensis</u>	4	1	1	0	3	0	0	0	0	0	3	0	0	0	0	1	0	0	4	1	0
FALCONIFORMES																						
Andean Condor	<u>Vultur gryphus</u>	1	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0
Bateleur Eagle	<u>Terathopius ecaudatus</u>	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
Wedge-tailed Eagle	<u>Aquila audax</u>	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
GALLIFORMES																						
Variable Chachalaca	<u>Ortalis motmot</u>	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
Sclater's Crested Curassow	<u>Crax fasciolata sclateri</u>	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0
Crested Guan	<u>Penelope purpurascens</u>	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Californian Quail	<u>Lophortyx californica</u>	1	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
Chinese Painted Quail	<u>Excalfactoria chinensis</u>	0	0	0	3	3	0	0	0	0	0	1	1	0	2	2	0	0	0	0	0	0
Madagascar Partridge	<u>Margaroperdix madagarensis</u>	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0
Roulroul Partridge	<u>Hollulus roulroul</u>	2	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0
Satyr Tragopan	<u>Tragopan satyra</u>	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	2	0
Himalayan Monal	<u>Lophophorus impeyanus</u>	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
Blue Eared-Pheasant	<u>Crossoptilon auritum</u>	2	2	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	1	1	0
Brown Eared-Pheasant	<u>Crossoptilon mantchuricum</u>	1	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
White Eared-Pheasant	<u>Crossoptilon crossoptilon</u>	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
Golden Pheasant	<u>Chrysolophus pictus</u>	1	1	0	1	0	0	0	0	3	0	0	2	0	0	0	0	0	0	1	0	8
Grey Peacock-Pheasant	<u>Polyplectron bicalcaratum</u>	1	1	0	1	0	0	0	0	4	0	0	1	1	0	0	0	0	0	1	1	0
Palawan Peacock Pheasant	<u>Polyplectron emphanum</u>	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
Sonnerat's Jungle Fowl	<u>Gallus sonneratii</u>	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Common Peafowl	<u>Pavo cristatus</u>	7	10	0	1	0	0	0	0	5	0	2	0	0	1	0	0	0	0	4	5	0
Green Peafowl	<u>Pavo muticus imperator</u>	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0



BIRDS

		1	2	3	4	5	6	7
		STOCK	RECEIVED	BORN/H*CH	D.N.S	DEATHS	DISPOSALS	STOCK
		1/1/1986			30 DAYS	OTHER		31/12/1986
		M F Y/?	M F Y/?	M F Y/?	M F Y/?	M F Y/?	M F Y/?	M F Y/?
GRUIFORMES								
Red-crowned Crane	<u>Grus japonensis</u>	2 0 0						2 0 0
White-naped Crane	<u>Grus vipio</u>	0 0 0	1 0 0					1 0 0
Sarus Crane	<u>Grus antigone</u>	1 1 0		0 0 2	0 0 1			1 1 1
Demoiselle Crane	<u>Anthropoides virgo</u>	1 1 0	1 0 0			1 0 0		1 1 0
West African Crowned Crane	<u>Balearica pavonina</u>	1 1 0						1 1 0
Red and White Crake	<u>Laterallus leucopyrrhus</u>	0 0 1	0 0 1					0 0 2
Ypecaha Rail	<u>Aramides ypecaha</u>	0 2 0	1 1 0				0 2 0	1 1 0
Sun Bittern	<u>Eurypyga helias</u>	1 1 0						1 1 0
Little Black Bustard	<u>Eupodotis afra</u>	0 0 0	1 1 0					1 1 0
CHARADRIIFORMES								
Silver Gull	<u>Larus novaehollandiae</u>	1 1 0						1 1 0
Grey-headed Gull	<u>Larus cirrocephalus</u>	0 0 2				0 0 1		0 0 1
Southern Stone Curlew	<u>Burhinus magnirostris</u>	1 1 0	1 1 0					2 2 0
Blacksmith's Plover	<u>Vanellus armatus</u>	2 5 1		1 1 14	0 0 9	0 0 2	0 2 1	3 4 3
Crowned Plover	<u>Vanellus coronatus</u>	2 1 2		5 2 7	0 0 6	0 0 1	2 0 1	5 3 1
COLUMBIFORMES								
Pallas's Sandgrouse	<u>Syrhaptes paradoxus</u>	4 2 0		0 1 1	0 0 1		1 1 0	3 2 0
Speckled Pigeon	<u>Columba guinea</u>	0 0 4	0 0 2					0 0 6
Pink Pigeon	<u>Nesoenas mayeri</u>	1 0 0						1 0 0
Laughing Dove	<u>Streptopelia senegalensis</u>	2 0 1					0 0 1	2 0 0
Bar-tailed Cuckoo Dove	<u>Macropygia unchall</u>	1 0 1	2 2 0			1 0 0		2 2 1
Emerald Dove	<u>Chalcophaps indica</u>	0 0 0	0 1 1					0 1 1
Crested Bronzewing Pigeon	<u>Ochophaps lophotes</u>	2 1 4	0 1 0			0 1 0		2 1 4
Mountain Witch Dove	<u>Geotrygon versicolor</u>	0 0 4	0 0 1			0 0 1		0 0 4
Diamond Dove	<u>Geopelia cuneata</u>	0 0 0	1 1 6	0 0 3		0 0 2	0 0 3	1 1 4
Golden Heart Pigeon	<u>Gallicolumba rufigula</u>	0 0 0	2 2 0					2 2 0
PSITTACIFORMES								
Red Lory	<u>Eos bornea</u>	1 1 0	1 0 0				1 0 0	1 1 0
Dusky Lory	<u>Pseudeos fuscata</u>	1 1 0				0 1 0		1 0 0
Soaly-breasted Lorikeet	<u>Trichoglossus</u> <u>chlorolepidotus</u>	2 1 0				0 1 0	2 0 0	0 0 0
Swainson's Lorikeet	<u>Trichoglossus haematodus</u> <u>moluccanus</u>	1 2 4						1 2 4
Weber's Lorikeet	<u>Trichoglossus haematodus</u> <u>weberi</u>	0 2 0					0 2 0	0 0 0
Ornate Lorikeet	<u>Trichoglossus ornatus</u>	1 1 0					1 1 0	0 0 0
Goldie's Lorikeet	<u>Trichoglossus goldiei</u>	2 0 0	1 1 3			2 0 2		1 1 1
Yellow-backed Lory	<u>Lorius zarrulus</u> <u>flavopalliatu</u>	1 0 0	0 1 0	0 0 1	0 0 1	0 1 0	1 0 0	0 0 0
Musk Lorikeet	<u>Glossopsitta concinna</u>	0 0 0	2 2 0			1 0 0		1 2 0
Musschenbroek's Lorikeet	<u>Neopsittacus</u> <u>musschenbroekii</u>	0 0 0	0 0 4					0 0 4
Palm Cockatoo	<u>Probosciger aterrimus</u>	2 1 0						2 1 0
Leadbeaters Cockatoo	<u>Cacatua leadbeateri</u>	0 0 0	1 1 0					1 1 0
Blue-eyed Cockatoo	<u>Cacatua ophthalmica</u>	5 3 2		0 0 1				5 3 3
Kea	<u>Nestor notabilis</u>	2 2 0						2 2 0
Red-sided Eclectus Parrot	<u>Eclectus roratus</u>	2 2 0	1 1 0	0 1 0				3 3 0
Crimson-winged Parrakeet	<u>Aprosmictus erythropterus</u>	1 1 0	1 0 0			1 0 0		1 1 0
Barraband Parrakeet	<u>Polytelis swainsoni</u>	1 1 0						1 1 0
Vasa Parrot	<u>Coracopsis vasa</u>	1 1 0						1 1 0
Lesser Vasa Parrot	<u>Coracopsis nigra nigra</u>	5 3 0					1 0 0	4 3 0
Crimson Rosella	<u>Platycercus elegans</u>	1 1 0	1 2 0	0 0 4			1 2 4	1 1 0
Golden-mantled Rosella	<u>Platycercus eximia</u>	0 0 1					0 0 1	0 0 0
Hooded Parrakeet	<u>Psephenotus chrysopterygius</u> <u>disimilis</u>	2 2 0				0 1 0		2 1 0
Splendid Parrakeet	<u>Neophema splendida</u>	1 1 0	1 0 0			1 0 0		1 1 0

BIRDS (CONTINUED)

		1		2		3		4		5		6		7					
		STOCK		RECEIVED		BORN/H'CH		D.N.S		DEATHS		DISPOSALS		STOCK					
		1/1/1986						30 DAYS		OTHER				31/12/1986					
		M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?			
Moustached Parrakeet	<u>Psittacula alexandri</u>	0	1	0							0	1	0	0	0	0			
Derbyan Parrakeet	<u>Psittacula derbiana</u>	4	4	2						0	0	1	0	0	1	4	4	0	
Red-fronted Macaw	<u>Ara rubrogenys</u>	1	7	0						0	1	0	0	1	0	1	5	0	
Yellow-naped Macaw	<u>Ara auricollis</u>	0	0	0	1	1	0			0	1	0				1	0	0	
Red-masked Conure	<u>Aratinga erythrogenys</u>	3	1	2												3	1	2	
Queen of Bavaria Conure	<u>Aratinga guarouba</u>	1	1	0												1	1	0	
Lesser Patagonian Conure	<u>Cyanoliseus patagonus</u>	0	0	25			0	0	11			0	0	18		0	0	18	
Maroon-tailed Conure	<u>Pyrrhura melanura</u>	2	1	5			0	0	10			1	0	15		1	1	0	
Slender-billed Parrakeet	<u>Enicognathus leptorhynchus</u>	3	1	0								2	0	0		1	1	0	
Yellow-faced Parrotlet	<u>Forpus xanthops</u>	5	10	0			0	0	1		1	3	0			4	7	1	
Grey-cheeked Parrakeet	<u>Protogeris pyrropterus</u>	0	0	0	0	0	6				0	0	1			0	0	5	
Yellow-billed Amazon	<u>Amazona collaris</u>	2	1	0			0	0	3	0	0	1				2	1	0	
Lilacine Amazon Parrot	<u>Amazona autumnalis</u>	2	2	0							0	1	0			2	1	0	
	<u>lilacina</u>																		
Hawk-headed Parrot	<u>Derophtus accipitrinus</u>	2	2	0												2	2	0	
CUCULIFORMES																			
Hartlaub's Turaco	<u>Tauraco hartlaubi</u>	0	2	0												0	2	0	
Schalow's Turaco	<u>Tauraco schalowi</u>	1	0	0	1	2	0			1	0	0				1	2	0	
White-cheeked Turaco	<u>Tauraco leucotis</u>	2	1	0						1	0	0				1	1	0	
Grey Go-Away Bird	<u>Crotophaga sulcirostris</u>	0	0	2						0	0	1	0	0	0	1	0	0	
Renauld's Ground Cuckoo	<u>Carpococcyx renauldi</u>	1	1	0						1	1	0				0	0	0	
STRIGIFORMES																			
Barn Owl	<u>Tyto alba</u>	0	2	0	2	0	0	0	11	0	0	2		0	0	9	2	2	0
Spotted Eagle Owl	<u>Bubo africanus</u>	0	1	0						0	1	0				0	0	0	
Great Eagle Owl	<u>Bubo bubo</u>	2	2	0			0	0	2				0	0	2	2	2	0	
Great Horned Owl	<u>Bubo virginianus</u>	2	2	0			0	0	2	0	0	2				2	2	0	
Fishing Owl	<u>Scotopelia bouvieri</u>	0	1	0												0	1	0	
Spectacled Owl	<u>Pulsatrix perspicillata</u>	3	2	0			0	0	1		0	1	0			3	1	1	
Snowy Owl	<u>Nyctea scandiaca</u>	2	2	0			0	0	2				0	0	2	2	2	0	
CAPRIMULGIFORMES																			
Tawny Frogmouth	<u>Podargus strigoides</u>	2	0	0												2	0	0	
APODIIFORMES																			
Red-backed Mousebird	<u>Colius castaneotus</u>	1	1	2			0	0	6	0	0	2	1	1	3		0	0	3
CORACIIFORMES																			
Kookaburra	<u>Dacelo novaeguineae</u>	2	2	0			0	0	9				0	0	7	2	2	2	
Blue-crowned Motmot	<u>Momotus monota</u>	0	0	0	0	0	2									0	0	2	
Grey Hornbill	<u>Tockus nasutus</u>	1	2	0												1	2	0	
Red-billed Hornbill	<u>Tockus erythrorhynchus</u>	1	0	0	0	1	0									1	1	0	
Trumpeter Hornbill	<u>Bucanistes buccinator</u>	1	1	0												1	1	0	
Great Indian Hornbill	<u>Buceros bicornis</u>	1	1	0						1	0	0				0	1	0	
Wrinkled Hornbill	<u>Aceros corrucatus</u>	0	0	0	1	1	0									1	1	0	
PICIFORMES																			
Fire-tufted Barbet	<u>Psilopogon pyrolophus</u>	2	2	1			0	0	3		0	1	1	0	0	2	2	1	1
Great Barbet	<u>Megalaima virens</u>	0	0	0	0	2	0									0	2	0	
Crimson-rumped Toucanet	<u>Aulacorhynchus haematopygus</u>	1	2	0			1	0	2		0	1	0	0	0	2	2	1	0
Channel-billed Toucan	<u>Ramphastos vitellinus</u>	1	1	0												1	1	0	
White Woodpecker	<u>Leuconerpes candidus</u>	1	1	0												1	1	0	



BIRDS (CONTINUED)

PASSERIFORMES

		1		2		3		4		5		6		7			
		STOCK		RECEIVED		BORN/H*CH		D.N.S		DEATHS		DISPOSALS		STOCK			
		1/1/1986						30 DAYS		OTHER				31/12/1986			
M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?
Red-eared Bulbul	<i>Pycnonotus jocosus</i>	0	0	4	0	0	2			0	0	1			0	0	5
Chinese Bulbul	<i>Pycnonotus sinensis</i>	0	0	2	0	0	4								0	0	6
Fairy Bluebird	<i>Irena puebla</i>	2	2	0	0	1	0	0	0	1	0	2	0		2	1	0
Cedar Waxwing	<i>Bombusilla cedrorum</i>	0	0	0	0	0	4								0	0	4
Red-headed Laughing Thrush	<i>Garrulax erythrocephalus</i>	2	1	1									2	1	1		0
White-crested Laughing Thrush	<i>Garrulax leucolophus</i>	0	3	1	1	0	0				0	1	0		1	2	1
Pekin Robin	<i>Leiothrix lutea</i>	0	0	4	0	0	1									0	0
Silver-eared Mesia	<i>Leiothrix argentauris</i>	0	0	4						0	0	2				0	2
Blue-grey Tanager	<i>Thraupis episcopus</i>	0	0	0	2	2	0	0	0	1	0	1	1	0		1	1
Blue-necked Tanager	<i>Tangara cyanicollis</i>	0	0	1									0	0	1		0
Black-capped White-eye	<i>Zosterops atricapilla</i>	0	0	1												0	1
Red-cowled Cardinal	<i>Paroria dominicana</i>	1	1	1			0	0	0	6	0	0	2		1	1	2
Wagler's Oropendola	<i>Psarocolius wagleri</i>	0	0	6	0	0	1				0	0	2		0	0	5
Brown & Yellow Marshbird	<i>Pseudoleistes virescens</i>	1	1	0											1	1	0
Giant Cowbird	<i>Scapudura oryzivora</i>	1	1	0											1	1	0
Mexican House Finch	<i>Carpodacus mexicanus</i>	3	4	0		1	0	9	0	0	1	0	0	3	0	0	5
Common Rosefinch	<i>Carpodacus erythrinus</i>	0	0	0	1	1	0				1	0	0		0	1	0
Melba Finch	<i>Ptyilia melba</i>	1	0	0	1	0					0	1	0		1	0	0
Red-tailed Lavender Waxbill	<i>Estrilda caerulescens</i>	0	0	0	0	4					0	0	4		0	0	0
Orange-cheeked Waxbill	<i>Estrilda melpoda</i>	0	0	4			0	0	2	0	0	2			0	0	3
Red Avadavat	<i>Amandava amandava</i>	0	0	0	1	1	0								1	1	0
Zebra Finch	<i>Poephila guttata</i>	0	0	15	0	0	4	0	0	16		0	0	11	0	0	9
Bengalese Finch	<i>Lonchura striata</i>	0	0	1									0	0	1		0
Spice Bird	<i>Lonchura punctulata</i>	0	0	5								0	0	1		0	4
Red-billed Buffalo Weaver	<i>Bubalornis niger</i>	1	0	0											1	0	0
Golden Sparrow	<i>Passer luteus</i>	1	0	0											1	0	0
Java Sparrow	<i>Padda oryzivora</i>	1	1	1		0	0	1			0	0	1		1	1	1
Baya Weaver	<i>Ploceus philippinus</i>	1	2	0											1	2	0
Red-billed Weaver	<i>Quelea quelea</i>	0	0	10							0	0	1		0	9	0
Napoleon Weaver	<i>Euplectes afer</i>	2	1	0											2	1	0
Long-tailed Glossy Starling	<i>Lamprolornis caudatus</i>	1	1	1		0	0	1			0	0	1		1	1	1
Purple Glossy Starling	<i>Lamprolornis purpureus</i>	1	3	1	0	0	1	0	0	3	0	0	2	0	0	2	0
Blue-eared Glossy Starling	<i>Lamprolornis chalybaeus</i>	1	0	0											1	0	0
Amethyst Starling	<i>Cinnyricinclus leucogaster</i>	2	0	0	0	1	1				1	1	1		1	0	0
Superb Starling	<i>Spreo superbus</i>	4	3	0			0	12	0	0	9				3	3	3
Royal Starling	<i>Cosmopsarus regius</i>	1	1	0											1	1	0
Rothschild's Mynah	<i>Leucopsar rothschildi</i>	4	2	0	0	2	0	0	4	0	0	2	0	0	1	4	1
Common Mynah	<i>Acridotheres tristis</i>	2	1	1									2	1	1		0
White-vented Mynah	<i>Acridotheres javanicus</i>	0	0	3								0	0	2		0	1
Hill Mynah	<i>Gracula religiosa</i>	1	0	0	0	2									1	0	2
Coledo Mynah	<i>Sarcops calvus</i>	1	4	0		0	5	0	0	4	0	1	0		1	3	1
Black-naped Oriole	<i>Oriolus chinensis</i>	1	0	0							1	0	0		0	0	0
Red-billed Blue Magpie	<i>Urocissa erythrorhyncha</i>	3	2	0	1	0					0	1	0	1	0	0	0
San Blas Jay	<i>Cissilopha sanblasiana</i>	1	1	2		0	0	2	0	0	2			0	0	1	1
Green Jay	<i>Cyanocorax yncas</i>	1	3	0											1	3	0
Red-billed Chough	<i>Pyrrhocorax pyrrhocorax</i>	0	2	2	1	0	0				0	0	1	0	1	1	1

753 179 334 92 133 268 773

Number of Specimens - 773

Number of Species - 181



REPTILES

	1 STOCK 1/1/1986	2 RECEIVED		3 BORN/H'CH		4 D.N.S 30 DAYS		5 DEATHS OTHER		6 DISPOSALS		7 STOCK 31/12/1986		
		M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	
RHYNCHOCEPHALIA														
Tuatara	<u>Sphenodon punctatus</u>	1	1	0								1	1	0
CHELONIA														
Greek Tortoise	<u>Testudo graeca</u>	6	8	3	12	22	0		13	15	0	5	15	3
Hawaii's Tortoise	<u>Testudo hawaiiensis</u>	5	10	5	4	7	0		2	5	1	2	1	0
Aldabra Giant Tortoise	<u>Geochelone gigantea</u>		1	4	0							1	4	0
Spurred Tortoise	<u>Geochelone sulcata</u>	1	0	1						1	0	0	0	1
Matamora Turtle	<u>Chelus fimbriatus</u>	1	0	0								1	0	0
Malayan Box Turtle	<u>Cuora amboinensis</u>	0	0	0	1	1	0					1	1	0
Soft-shelled Turtle	<u>Trionyx triunguis</u>	1	0	0								1	0	0
Spiny Soft-shelled Turtle	<u>Trionyx spiniferus</u>	0	0	1				0	0	0	1	0	0	0
Geographic Terrapin	<u>Chrysemys sp.</u>		aq	0	0	2						0	0	2
SAURIA														
Northern Green Gecko	<u>Naultinus elegans</u>	5	2	0		0	0	2				5	2	2
Tokay Gecko	<u>Gekko gecko</u>	6	3	5		0	0	2				6	3	7
Round Island Gecko	<u>Phelsuma suentheri</u>	0	1	3					0	1	1	0	2	0
Leopard Gecko	<u>Eublepharis macularius</u>	2	15	16	1	0	0	0	55	0	0	1	0	0
Moorish Gecko	<u>Tarentola mauritanica</u>	1	2	0								4	23	1
Mexican Beaded Lizard	<u>Heterosaurus horridum</u>	1	0	1							1	0	1	0
Zonure	<u>Cordylus rizardus</u>	0	0	1	1	2	0					1	3	0
Eyed Lizard	<u>Lacerta lepida</u>	2	3	0		0	0	17				2	3	17
Jungle Runner	<u>Ameiva ameiva</u>	1	2	0					0	2	0	1	0	0
African Agama	<u>Agama agama</u>	2	3	0	1	1	0		3	3	0	0	1	0
Big-head Anolis	<u>Anolis cybotes</u>	0	0	1					0	0	1	0	0	0
Anolis Lizard	<u>Anolis equestris equestris</u>	1	0	0								1	0	0
Helmeted Lizard	<u>Corvophanes cristatus</u>	0	0	1					0	0	1	0	0	0
Common Iguana	<u>Iguana iguana</u>	0	0	3	1	1	1		1	1	0	1	1	2
Rhinoceros Iguana	<u>Cyclura cornuta</u>	3	4	0					1	0	0	2	4	0
Thailand Water Dragon	<u>Physignathus cocincinus</u>	1	3	2					0	0	2	1	3	0
Eastern Water Dragon	<u>Physignathus lesuerii lesuerii</u>	0	1	0								0	1	0
Sail-fin Lizard	<u>Hydrosaurus amboinensis</u>	0	0	3	0	0	3		0	0	2	0	0	4
American Basilisk	<u>Basiliscus basiliscus</u>	2	6	0					0	1	0	2	5	0
Plumed Basilisk	<u>Basiliscus plumifrons</u>	0	0	1	0	0	1					0	2	0
Round Island Skink	<u>Leiolopisma telfairii</u>	1	0	0								1	0	0
Plated Lizard	<u>Gerrhonotus major</u>	2	0	0						2	0	0	0	0
West African Skink	<u>Mabuia perrotetii</u>	0	0	2				0	0	2		0	0	0
Shingleback Lizard	<u>Trachydosaurus rugosus</u>	0	0	2				0	0	1		0	0	1
New Guinea Blue-tongued Skink	<u>Tiliqua gigas</u>	3	3	0	1	0	0	0	5	0	0	5	2	3
Prehensile-tailed Skink	<u>Corucia zebrata</u>	1	1	4		0	0	1				1	1	5
Green Tree Monitor	<u>Varanus prasinus</u>	0	1	0						0	1	0	0	0
Savannah Monitor	<u>Varanus exanthematicus</u>	0	0	5	0	0	1		0	0	4	0	0	2
Salvator Monitor	<u>Varanus salvator</u>	1	1	0	0	0	2		1	1	0	0	0	2
Glass Snake	<u>Ophisaurus apodus</u>	1	0	0								1	0	0
Teguexin	<u>Tupinambis micropunctatus</u>	0	0	0	1	1	1					1	1	1
SERPENTES														
Calabar Python	<u>Calabaria reinhardtii</u>	2	2	0					1	1	0	1	1	0
D'Alberti's Python	<u>Liasis fuscus albertisi</u>	1	0	0								0	0	0
Indian Python	<u>Python molurus bivittatus</u>	2	3	0	0	1	0	0	11	0	1	0	9	2
Royal Python	<u>Python regius</u>	1	1	1					0	1	1	1	0	0
Yellow Anaconda	<u>Eunectes notaeus</u>	0	0	0	1	1	0					1	1	0
Boa Constrictor	<u>Constrictor constrictor</u>	6	1	0	0	2	0			1	0	0	5	3
Cuban Boa	<u>Epicrateres angulifer</u>	1	1	0								1	1	0
Jamaican Boa	<u>Epicrateres subflavus</u>	1	1	0								1	1	0
Rainbow Boa	<u>Epicrateres cenchris maura</u>	0	0	0	0	2			0	0	1	0	0	1
Pacific Boa	<u>Candoia carinata</u>	1	1	0					1	0	0	0	1	0
Madagascan Tree Boa	<u>Sanzinia madagascariensis</u>	1	0	0	0	1	0					1	1	0





REPTILES

		1 STOCK		2 RECEIVED		3 BORN/H'CH		4 D.N.S 30 DAYS		5 DEATHS OTHER		6 DISPOSALS		7 STOCK 31/12/1986	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F
		Y/?	Y/?	Y/?	Y/?	Y/?	Y/?	Y/?	Y/?	Y/?	Y/?	Y/?	Y/?	Y/?	Y/?
Emerald Tree Boa	<u>Corallus caninus</u>	1	1	0	0					1	1	0	0	0	0
Garter Snake	<u>Thamnophis sirtalis</u>	1	1	0	0							1	1	0	0
Speckled Kingsnake	<u>Lampropeltis getulus</u> <u>holbrooki</u>	1	1	0	0									1	1
Californian Mountain King Snake	<u>Lampropeltis zonata</u>	1	1	0	0					1	1	0	0	0	0
Honduran Milk Snake	<u>Lampropeltis triangulum</u> <u>hondurensis</u>	0	0	0	2	1	0			1	0	0	0	1	1
Texas Indigo Snake	<u>Drymarchon corais</u> <u>erebennus</u>	1	0	0	0	2	0	0						1	2
Black Rat Snake	<u>Elaphe obsoleta obsoleta</u>	1	1	0	0									1	1
Corn Snake	<u>Elaphe guttata guttata</u>	0	4	0	0					0	2	0	0	0	2
Great Plains Ratsnake	<u>Elaphe g. emoryi</u>	1	1	0	0	1	0			0	1	0	0	1	1
Red-tail Racer	<u>Elaphe oxycephala</u>	0	0	0	2	2	0			1	0	0	0	1	2
Brown Tree Snake	<u>Boiga irregularis</u>	4	0	0	0					1	0	0	0	3	0
Indian Cobra	<u>Naja naja</u>	1	2	0	0									1	2
False Water Cobra	<u>Hydrodynastes gigas</u>	0	0	0	1	2	0							1	2
Green Mamba	<u>Dendroaspis angusticeps</u>	1	1	0	0									1	1
Gaboon Viper	<u>Bitis gabonica</u>	1	1	0	0									1	1
Nose Horned Viper	<u>Vipera ammodytes</u>	0	0	0	1	1	0					0	1	0	0
Emerald Pit Viper	<u>Trimeresurus</u> <u>eurethrocalmerus</u>	0	1	0	0									0	0
Bamboo Pit Viper	<u>Trimeresurus albolabris</u>	1	1	1	0			0	0	6	0	0	4	1	1
Cantil Moccasin	<u>Akistobrodon bilineata</u>	0	0	3	0						0	0	2	0	0
Western Diamond-backed Rattlesnake	<u>Crotalus atrox</u>	0	0	2	1	0	0	0	0	10	0	0	1	1	2
Pygmy Rattlesnake	<u>Sistrurus miliarius</u>	2	1	0	0					2	0	0	0	0	1
CROCODYLIA															
Mississippi Alligator	<u>Alligator mississippiensis</u>	3	2	1	0									3	2
Broad-fronted Crocodile	<u>Osteoaemus tetraspis</u>	1	1	0	0									1	1
Johnston's Crocodile	<u>Crocodylus johnstoni</u>	1	1	0	0									1	1
		274		91		109		13		97		85		279	



AMPHIBIA

		1 STOCK		2 RECEIVED		3 BORN/H'CH		4 D.N.S 30 DAYS		5 DEATHS OTHER		6 DISPOSALS		7 STOCK 31/12/1986	
		M	F	M	F	M	F	M	F	M	F	M	F		
		Y/?	Y/?	Y/?	Y/?	Y/?	Y/?	Y/?	Y/?	Y/?	Y/?	Y/?	Y/?	Y/?	Y/?
Australian Tree Frog	<u>Litoria caerulea</u>			6	0										1
Argentine Horned Frog	<u>Ceratophrys ornata</u>			3	0										1
Asian Horned Frog	<u>Megaphrys nasuta</u>			1	0										0
Poison-arrow Frog	<u>Dendrobates azureus</u>			1	0										0
Pixie Frog	<u>Pyxicephalus adspersus</u>			4	0										4
Fire-belly Toad	<u>Bombina orientalis</u>			6	0										6
South African Clawed Frog	<u>Xenopus laevis</u>	aq	65		2							67			0
do (albino form)	" "		79								75				4
Dwarf Aquatic Frog	<u>Hymenochirus boettgeri</u>	aq	6								6				0
Axolotl (black form)	<u>Amblystoma mexicanum</u>	aq	4								1				3
do (white form)	" "	aq	4								4				0
Italian Created Newt	<u>Triturus cristatus</u>	aq	1								1				0
Japanese Fire-bellied Newt	<u>Cynops pyrrhogaster</u>	aq	24									12			12
Californian Newt	<u>Taricha torosa</u>		2									2			0
Surinam Toad	<u>Pipa pipa</u>	aq	3		2						3				2
Nigerian Clawed Frog	<u>Xenopus tropicalis</u>	aq	5												5
Asian Striped Frog	<u>Rana erythrycea</u>		0		3										3
Leopard Frog	<u>Rana pipiens</u>		0		2						1				1
		214		9						25		156		42	

aq indicates species kept by the Aquarium.

Reptiles Number of Specimens - 279

Reptiles Number of Species - 62

Amphibia Number of Specimens - 42

Amphibia Number of Species - 16



FISH

STOCK AS AT 31ST DECEMBER 1986

ACIPENSERIDAE

Sterlet	<i>Acipenser ruthenus</i>	3
Mississippi Paddlefish	<i>Polyodon spathula</i>	3

OSTEOGLOSSIDAE

South American Arowana	<i>Osteoglossum bicirrhosum</i>	5
Asiatic Arowana	<i>Scleropages formosus</i>	3

GYMNOTIDAE

Banded Knife Fish	<i>Gymnotus carapo</i>	1
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NOTOPTERIDAE

Clown Knife Fish	<i>Notopterus chitala</i>	1
African Knife Fish	<i>Xenomystus nigri</i>	20

MORMYRIADAE

Long-nosed Elephant Trunk Fish	<i>Gnathorernus petersi</i>	4
Short-nosed Elephant Trunk Fish	<i>Marcusenrus angolensis</i>	3
Round-nosed Elephant Trunk Fish	<i>Pollinivrus castelnaui</i>	5

POLYPTERIDAE

Birchirs	<i>Polypterus senegalis</i>	5
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CHARACIDAE

Long-finned Characin	<i>Alestes longipinnis</i>	16
Bloodfin Tetra	<i>Aphyocharax anisiti</i>	20
Red-eyed Characin	<i>Arnoldichthys spilopterus</i>	15
Blind Cave Fish	<i>Astynax jordani</i>	25
Whimble Piranha	<i>Catoprin mento</i>	1
Cardinal Tetra	<i>Cheirodon axelrodi</i>	36
Black Widow Tetra	<i>Gymnocorymbus ternetzi</i>	22
Buenos Aires Tetra	<i>Hemigrammus caudovittatus</i>	1
Glowlight Tetra	<i>Hemigrammus erythrozonus</i>	9
Rummy-nosed Tetra	<i>Hemigrammus rhodostomus</i>	28
Flame Tetra	<i>Hypessobrycon flammeus</i>	* 14
Black Neon Tetra	<i>Hypessobrycon herbertaxelrodi</i>	9
Lemon Tetra	<i>Hypessobrycon pulchripinnis</i>	20
Bleeding Heart Tetra	<i>Hypessobrycon rubrostigma</i>	13
Black-lined Tetra	<i>Hypessobrycon scholzei</i>	* 4
Black Phantom Tetra	<i>Megalampodus megalopterus</i>	12
Red-eyed Tetra	<i>Moenkhausia sanctaefilomenae</i>	4
Emperor Tetra	<i>Nematobrycon palmeri</i>	12
Neon Tetra	<i>Paracheirodon innesi</i>	6
Congo Tetra	<i>Phenacogrammus interruptus</i>	27
	<i>Pyrhulina stoli</i>	6
	<i>Serrasalpinx gibbus</i>	5

ANOSTOMIDAE

Marbled Headstander	<i>Abramites microcephalus</i>	4
Striped Anostomus	<i>Anostomus anostomus</i>	16

GYRINOCHEILIDAE

Sucking Loach	<i>Gyrinocheilus symonieri</i>	36
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HEMIODONTIDAE

Golden Pencil Fish	<i>Nannostomus anomalus</i>	2
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GASTERAPELECIDAE

Marbled Hatchetfish	<i>Carnegiella strigata</i>	20
Silver Hatchetfish	<i>Gasteropelecus sternicla</i>	2

CYPRINIDAE

Bream	<i>Abramis brama</i>	2
Silver Shark	<i>Balantiocheilus melanopterus</i>	1
Cumings Barb	<i>Barbus cumingi</i>	* 300
Zebra Danio	<i>Brachydanio rerio</i>	* 50
Cherry Barb	<i>Capoeta tittava</i>	* 100
Goldfish (various)	<i>Carassius auratus</i>	24
Grass Carp	<i>Ctenopharyngodon idella</i>	4
Mirror Carp	<i>Cyprinus carpio</i>	15
Hi-goi Carp	" "	3
Koi Carp	" "	35
Golden Orfe	<i>Idus idus</i>	8
Red-tailed Black Shark	<i>Labeo bicolor</i>	3

Red Horse Minnow	<i>Notropis lutrensis</i>	8
Roay Barb	<i>Puntius conchongius</i>	* 95
Black Ruby Barb	<i>Puntius nigrofasciatus</i>	24
Golden Barb	<i>Puntius sachai</i>	* 16
Red-tailed Rasbora	<i>Rasbora borapetensis</i>	2
Red-tailed Scissor Tail	<i>Rasbora caudimaculata</i>	2
Brilliant Rasbora	<i>Rasbora einthoveni</i>	3
Harlequin Rasbora	<i>Rasbora heteromorpha</i>	5
Elegant Rasbora	<i>Rasbora lateristriata elegans</i>	13
Glowlight Rasbora	<i>Rasbora pauciperforata</i>	7
Rasbora	<i>Rasbora sp</i>	2
Golden Rudd	<i>Scardinius erythrophthalmus</i>	* 180
Tench	<i>Tinca tinca</i>	1

COBITIDAE

Skunk Botia	<i>Botia horae</i>	2
Clown Loach	<i>Botia macracantha</i>	1

CENTROPOMIDAE

Indian Glassfish	<i>Chandra ranga</i>	3
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CICHLIDAE

Oscar or Marbled Cichlid	<i>Astronotus ocellatus</i>	3
Red Devil Cichlid	<i>Cichlasoma citrinellum</i>	* 40
	<i>Cichlasoma managuense</i>	4
Convict Cichlid	<i>Cichlasoma nigrofasciatum</i>	14
Jack Dempsey	<i>Cichlasoma octofasciatum</i>	10
Red-headed Cichlid	<i>Cichlasoma synspilum</i>	6
Frontosa	<i>Cyphotilapia frontosa</i>	6
Paraguay Mouthbrooder	<i>Geophagus balzanii</i>	1
Burton's Mouthbrooder	<i>Haplochromis burtoni</i>	12
Jewel Cichlid	<i>Hemichromis bimaculatus</i>	8
Banded Cichlid (Golden form)	<i>Heros severus</i>	3
Rainbow Cichlid	<i>Herotilapia multispinosa</i>	1
	<i>Nannochromis nudiiceps</i>	6
Rainbow Cichlid	<i>Pelvicachromis pulcher</i>	1
Livingstone's Mbuna	<i>Pseudotropheus livingstoni</i>	* 40
Angel Fish	<i>Pterophyllum scalare</i>	15
Green Discus	<i>Symphysodon aequifasciata</i>	2
Brown Discus	<i>Symphysodon axelrodi</i>	2
Heckel Discus	<i>Symphysodon discus</i>	3
Fire-mouth Cichlid	<i>Thorichthys meeki</i>	5
Uaru	<i>Uaru amphiacanthoides</i>	4

ANABANTIDAE

Climbing Perch	<i>Anabas testudineus</i>	1
Comb-tailed Paradise Fish	<i>Belontia signata</i>	16
Leopard Climbing Perch	<i>Ctenopoma acutirostre</i>	4
Chocolate Gourami	<i>Sphaerichthys osphromenoides</i>	1
Pearl Gourami	<i>Trichogaster leeri</i>	* 18
Moonlight Gourami	<i>Trichogaster microlepis</i>	* 10
Three-spot Gourami	<i>Trichogaster trichopterus</i>	1
Opaline Gourami	<i>Trichogaster trichopterus var</i>	10
Golden Gourami	<i>Trichogaster trichopterus var</i>	10
Sparkling Gourami	<i>Trichopsis pumilus</i>	8
Croaking Gourami	<i>Trichopsis vittatus</i>	2

ATHERINIDAE

Madagascan Rainbow Fish	<i>Bedotia geayi</i>	* 1
Feather Fin Rainbow Fish	<i>Triatherina werneri</i>	1
Boeseman's Rainbow Fish	<i>Melanotaenia boesemani</i>	* 50
Australian Rainbow Fish	<i>Melanotaenia fluviatilis</i>	* 24
Australian Rainbow Fish	<i>Melanotaenia maccullochi</i>	* 8
Celebes Rainbow Fish	<i>Telmatherina ladipesi</i>	* 15

BAGRIDAE

Two-spot Catfish	<i>Mystus micracanthus</i>	2
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MOCHOKIDAE

Polka-dot Upside-down Catfish	<i>Synodontis angelicus</i>	4
Decorated Upside-down Catfish	<i>Synodontis decorus</i>	4
Upside-down Catfish	<i>Synodontis nigriventris</i>	8
Upside-down Catfish	<i>Synodontis sp</i>	10

PIMELODIDAE

Catfish	<i>Pimelodus pictus</i>	10
Shovel-nosed Catfish	<i>Sorubim lima</i>	3



FISH (CONTINUED)

STOCK AS AT 31ST DECEMBER 1986

MALAPTERURIDAE			
Electric Catfish	<u>Malapterus electricus</u>	1	
SILURIDAE			
Glass Catfish	<u>Kyptonterus bicirrhus</u>	8	
CALLICHTHYIDAE			
Bronze Catfish	<u>Brogis caeruleus</u>	1	
Albino Bronze Catfish	<u>Corydoras aeneus</u>	* 80	
Arched Corydorass	<u>Corydoras arcuatus</u>	10	
	<u>Corydoras bondi</u>	4	
	<u>Corydoras habrosus</u>	8	
	<u>Corydoras metae</u>	1	
Peppered Catfish	<u>Corydoras paleatus</u>	* 12	
Porthole Catfish	<u>Dianema longibaris</u>	1	
LORICASIIDAE			
Plecostomus Catfish	<u>Hypostomus plecostomus</u>	20	
Royal Plecostomus	<u>Panaque nigrolinatus</u>	1	
Clown Plecostomus	<u>Peckoltia sp</u>	* 30	
Bristle-nosed Plecostomus	<u>Xenopoma sp</u>	4	
CYPRINODONTIDAE			
American Flag Fish	<u>Jordaniella floridae</u>	* 60	
Guppy	<u>Poecilia reticulata</u>	* 200	
Tuxedo Swordtail	<u>Xiphophorus helleri</u>	* 50	
Green Swordtail	<u>Xiphophorus helleri</u>	* 200	
Red Wagtail Platy	<u>Xiphophorus maculatus</u>	* 150	
GOODEIDAE			
Butterfly Goodied	<u>Ameba splendens</u>	* 150	
DORADIDAE			
Spotted Talking Catfish	<u>Agamyxis pectinifrons</u>	2	
Driftwood Catfish	<u>Auchenipterichthys thoracactus</u>	20	
Striped Talking Catfish	<u>Platydoras costatus</u>	2	
MONODACTYLIDAE			
Finger Fish	<u>Monodactylus argenteus</u>	3	
POTAMOTRYGONIDAE			
Fresh-water Stingray	<u>Potamotrygon sp</u>	* 4	
DIPNOI			
South American Lung Fish	<u>Lepidosiren paradoxa</u>	1	
African Lung Fish	<u>Protopterus annectens</u>	1	
HEMIRAMPHIDAE			
Halfbeak	<u>Dermogenys pusillus</u>	2	
Halfbeak	<u>Dermogenys sumatranus</u>	* 28	
Celebes Halfbeak	<u>Nomorhamphus celebensis</u>	* 20	
OPHICHTHYIDAE			
Black Spotted Snake Eel	<u>Myrichthys sp</u>	1	
MURAENIDAE			
Snowflake Moray Eel	<u>Echidna nebulosa</u>	2	
POMACENTRIDAE			
Yellow-tailed Blue Damsel Fish	<u>Abudefduf cyaneus</u>	2	
Fire Clown Fish	<u>Amphiprion ephippium</u>	2	
Tomato Clown Fish	<u>Amphiprion frenatus</u>	4	
Common Clown Fish	<u>Amphiprion ocellaris</u>	3	
Saddle Clown Fish	<u>Amphiprion polymnus</u>	1	
Black-tailed Humbug Damsel Fish	<u>Dasycillus melanurus</u>	1	
Beau Gregory Damsel Fish	<u>Eupomacentrus leucostictus</u>	10	
Surge Damsel Fish	<u>Glyptodotops eucopomus</u>	1	
Yellow-tailed Blue Damsel Fish	<u>Pomacentrus melanochir</u>	1	
DIODONTIDAE			
Spiny Puffer Fish	<u>Chilomycterus antennatus</u>	1	

ACANTHURIDAE			
Clown Surgeon Fish	<u>Acanthurus lineatus</u>	1	
Regal Tang	<u>Paracanthurus hepatus</u>	1	
Moorish Idol	<u>Zanclus canescens</u>	1	
Yellow Tang	<u>Zebrasoma flavescens</u>	1	
Sailfin Tang	<u>Zebrasoma vexilliferum</u>	1	
CIRRHITIDAE			
Long Nosed Hawkfish	<u>Oxyrrhites typus</u>	4	
SERRANIDAE			
Blue-jewelled Grouper	<u>Cephalopholis argus</u>	1	
POMACANTHIDAE			
African Flame-backed Angel Fish	<u>Centropyge acanthops</u>	1	
CHAETODONTIDAE			
Pearscale Butterfly Fish	<u>Chaetodon chrysurus</u>	1	
SYNGNATHIDAE			
Dwarf Seahorse	<u>Hippocampus zosterae</u>	2	
Seahorse	<u>Hippocampus sp.</u>	1	
SCORPAENIDAE			
Scorpion Fish	<u>Pterios volitans</u>	1	

Number of Species = 163 Number of Specimen = c 2869

* Indicates species bred in the Society's collection in 1986

INVERTEBRATES			
COELENTERATES			
Beadlet Anemone	<u>Actina equina</u>	* aq	50
Plumose Anemone	<u>Metridium senile</u>	aq	4
Sea Anemone	<u>Radianthus malu</u>	aq	3
Sea Anemone	<u>Stoichactis sp.</u>	aq	1
CRUSTACEANS			
Cleaner Shrimp	<u>Lyasmata grabhami</u>	aq	1
Banded Coral Shrimp	<u>Stenopus hispidus</u>	aq	2
INSECTS			
House Crickets	<u>Acheta domesticus</u>	* *	50
Indian Stick Insects	<u>Baculum sp.</u>	* *	100
Spiny Stick Insects	<u>Eurycantha calcarata</u>	* *	14
Macleays Spectres	<u>Extatosoma tiaratum</u>	* *	45
Hissing Cockroaches	<u>Gromphadorhina portentosa</u>	* *	24
Migratory Locust	<u>Locusta migratoria</u>	* *	50
Fruit Beetles	<u>Pachnoda marginata</u>	* *	24
Praying Mantis	<u>Sphodromantia centralis</u>	* *	2
ARACHNIDS			
Bird Eating Spider	<u>Acanthoscurria sp.</u>		1
Pink-Toed Tarantula	<u>Avicularia avicularia</u>		1
Mexican Red Knee Spider	<u>Eurytelma colima</u>		5
Black Thai Spider	<u>Melopagus albostrigatus</u>		1
Haitian Brown Spider	<u>Phormictopus cancerides</u>		2
Tree Spider	<u>Tapenauchenius plumipes</u>		2
Emperor (Imperial) Scorpion	<u>Pandinus imperator</u>		1
MOLLUSCS			
African Land-Snail	<u>Achatina fulica</u>		24
ECHINODERMS			
Common Star Fish	<u>Asterias rubens</u>	aq	6
Red Sea Star Fish	<u>Protoreaster linckii</u>	aq	1

Number of Species - 24 Number of Specimens - 414

* indicates species bred in the Society's collection in 1986
aq indicates species kept by the Aquarium