

ANNUAL REPORT 1987

THE NORTH OF
ENGLAND
ZOOLOGICAL
SOCIETY

CHESTER
ZOO



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.

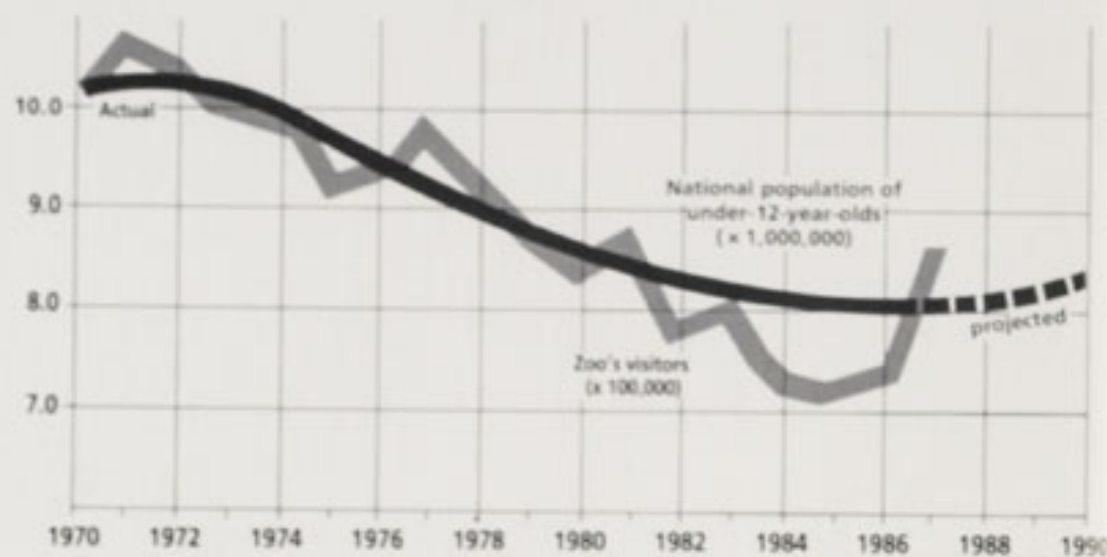
For several years the Zoo struggled to survive but by the end of the 1940s it was on a financially sound basis and application was made to convert the Society into a Scientific and Educational Charity. Charity status was granted in 1950 and it became possible to drop the word 'Ltd' from the Society's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



material 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 much affected by greater competition, the effects of inflation and unemployment, industrial action affecting schools, a long term decline in the numbers of under 12's in the population and stricter legislative standards for construction operations.

However, there are hopeful signs that some at least of these adverse factors are

behind us, and the projected increase of under 12 year olds—shown above—should be of great benefit.

The 1987 visitor survey, run in August showed that the cats were our most popular exhibits, with lions scoring the highest ratings for any species. Primates were the second favourite, followed by elephants.



THE COUNCIL

Council Members from Annual General Meeting, 16th May 1987.

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., BVSc., M.R.C.V.S.
Dr. D.A.P. Cooke
Miss J.P. Dixon, C.Chem., F.R.S.C.
D.B. Edwards, Esq., BVSc., M.R.C.V.S.
A. Guy, Esq.
J.H. Howatt, Esq., F.C.A. (Vice-Chairman)
M.A.R. Johnson, Esq., M.A., F.C.A., F.C.M.A.
Mrs. B.J. Jones, B.Sc.
G.K. Jump, Esq.
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.
N.J.W. Wilson, Esq.

Director and Company Secretary

Dr. Michael R. Brambell, M.A., Vet.M.B., Ph.D., M.R.C.V.S.

Financial Controller and Deputy Director

E.A. Du Cros, Esq., F.C.A.

PRESIDENT AND VICE-PRESIDENTS

The Society is very honoured that His Grace the Duke of Westminster has agreed to be its first President.



In response to Council's invitation Dinah, Lady Tollemache, who served on Council from 1975-1983, and Professor J. Oliver L. King, who served on Council from 1969-1986 and who was Chairman of Council from 1972-1986 have agreed to become the Society's first Vice-Presidents.

DIRECTOR'S FOREWORD

In 1987 the Zoo built on its success of the previous year and attracted in a further 129,480 paying visitors, the second highest increase over a year in the Zoo's history. There were special factors: the late Easter, coupled with a period of exceptionally fine weather and the 'One by One' television series made for a good start. Nevertheless we kept up the momentum and increased the lead throughout the Summer. Financially the Zoo performed even better than in 1986, making it possible for a great number of repairs and renewals of the fabric of the Zoo to be undertaken.

The animal collections and the gardens showed steady improvement. We bred flamingoes for the first time and ended the year with the excitement of an Indian rhinoceros coming and another Indian elephant given on loan to Chester as part of co-operation management arrangements.

Everybody: public, adopters and sponsors, volunteers and staff in their many departments, should feel proud that the Zoo is gathering momentum.

Michael R. Brambell
DIRECTOR



Introduction by the Chairman

I am pleased to be able to report that we had another successful year in 1987. Our visitor numbers were up to 862,471 helping us to make a trading surplus of some £162,000—an increase of £53,000, or in percentage terms approximately a 48% improvement on 1986—a year which in itself was a milestone. This result is one which all those involved with the running of the Zoo should be proud.

We have not stood idle this year, in either our capital or maintenance budget. Those regular visitors will have noticed that the perimeter fence around the total collection is now virtually complete, and the parrot house and part of the tropical house have been re-roofed as well as new kiosks being provided. Behind the scenes the staff accommodation in Caughall Farmhouse has been refurbished, a number of animal kitchens have been provided and a major new greenhouse has been erected. Towards the end of the year a complete refurbishment of the Oakfield kitchen was started together with a general cleaning and repolishing of the panelling in the restaurant. Plans are also afoot here to provide some element of soft furnishing to quieten the surroundings and to make them more attractive to diners.

Last year I announced that Council had approved the launch of a fund raising scheme to convert part of the old stable block into an interpretive centre and also approved the re-housing of the chimpanzees. I am pleased to be able to report that planning of both schemes is well underway. A

design for the stable block has been prepared and an application for planning permission is being made. Once this is achieved the fund raising activities will then be able to proceed at full tilt. As to the new "chimp" house, Council has approved an expenditure of £250,000 for this and work on site will start with a view to this collection being completely re-housed by the winter of 1988.

The Director has prepared an outline plan for the Zoo through to the year 2000, this has the approval of Council and was presented to the members and staff in December. The plan is, at present, being firmed up and, I hope, will be available shortly to be used as a working document for future development. One significant proposal in the plan is to move the main entrance to the north of the Zoo with direct access off the A41, and negotiations have been opened with both the City and County Councils.

We must again congratulate our head gardener, and his team for winning for a second time, the appropriate section of the Britain in Bloom Competition. A significant percentage of visitors come to see the gardens; our groundsmen and gardeners, therefore, have a vital part to play in our presentation to the public and we are proud of them.

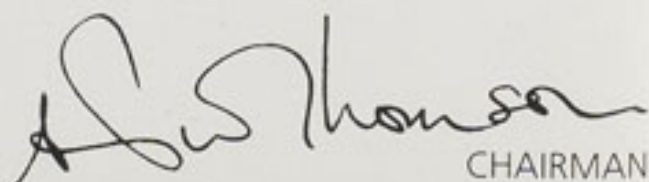
Members may be interested to know that we hope, in the not too distant future, to open at least one of our main greenhouses to visitors.

During 1987, Subis our baby Orang-utan proved a great visitor attraction; we gave a home to Kirsty an Indian elephant from Glasgow, increasing our elephant herd, temporarily, to six. We also hatched our first flamingos and welcomed a pair of Congo Peafowl from Antwerp; we continued our conservation policy by rearing and releasing into the local countryside a number of barn owls.

On the broader front, during the year, we hosted a small group of International Zoo Directors and welcomed Lee and Gerald Durrell; our own Director visited Tokyo to attend the World Symposium on Giant Panda, the Deputy Director and Marketing Manager visited a number of European Zoos and the Curator of Birds visited Nigeria. I believe that this exchange of views is healthy, and necessary, and helps us to secure our place in the International Zoo forum. I sincerely hope that the Director especially, will feel able to represent us, both locally and nationally, on the international scene far more than he has been able to do in the recent past.

It is always difficult in a report of this nature, which can only be a précis of events, to mention anyone by name, however, I feel that it would be seriously remiss of me not, on this occasion, to mention Fred Carson, who, at the end of the year stepped down from being Estate Engineer. I doubt if any of us really know to what extent we all owe a debt of gratitude to him. Not only has Fred been looking after the maintenance of the Society's fabric as Estate Engineer for the last 4½ years and before that supervised the building of the Penguin Pool while still a Member of Council (1976-1983) but he has been keenly concerned with the Society itself. Although he will not be around so frequently as in the past, I am glad to say he will not be disappearing from the scene completely and will be keeping an eye on the construction of the new chimp house.

Finally, I am pleased to report that the Society is, I believe, in an excellent state of health and in the capable hands of a Director and Staff in whom our continued support is essential; with the foundations laid in 1986 and 1987 I feel that we can look forward to a continuing programme of growth and improvement in 1988.


CHAIRMAN

In 1986, we hatched two emu eggs from Haigh Hall at Wigan. In 1987 these were exchanged for an adult female, which is now breeding.



Review of the Year

1987 was another successful year. The number of visitors showed a 17.7% increase, to 862,471. We believe several factors contributed to this rise, the second largest in the Zoo's history. There has been an underlying rise of 1% in the population of young children in the area, after a spell of fifteen years in which the number had been falling at about 1.5% a year. Easter was very late in 1987 and we know that we can expect about 50,000 more visitors in a late-Easter year than when Easter is early. Also, April's weather was excellent. But perhaps the most significant single factor was the publicity gained by the Zoo through the 'One-by-One' television programme being broadcast over the nine weeks leading up to Easter, with the Zoo's name in the credits of each episode.

Though we were already 96,000 visitors ahead by the end of April we continued to improve over the previous year in every month except June, in spite of somewhat indifferent weather.

Financially, the Zoo improved, with a trading surplus of £186,000 before making provision for the extra depreciation of £44,000 due on capital work done within the year. However, capital expenditure to the value of £401,000 was incurred, with the result that a true surplus of £141,611 was earned.

Capital works included the completion of the perimeter fence round the Zoo, the provision of several new animal kitchens, a new greenhouse, a new fish store, improvements to properties, the fitting of hydraulic gear to the Elephant House doors, and many other items.

In addition several major renewals were undertaken, the most important being a new roof to the upper gallery of the Tropical House. At the end of the year work was in progress on the Orang-utans' accommodation and on replacing the roof of the Parrot House.

The largest animals to join the Zoo were the Indian elephant, Kirsty, deposited by the Zoological Society of Glasgow, Calderpark Zoo, where she had been alone for some years, and the young male Indian rhinoceros, Yodha, who was deposited by the Zoological Society of London, Whipsnade Park, where he was born. The old 'zebroid', Charlie, who had been in the Zoo for 31 years began to fail and had to be put to sleep and the male chimpanzee, Bolden, died after 32 years in the Zoo.

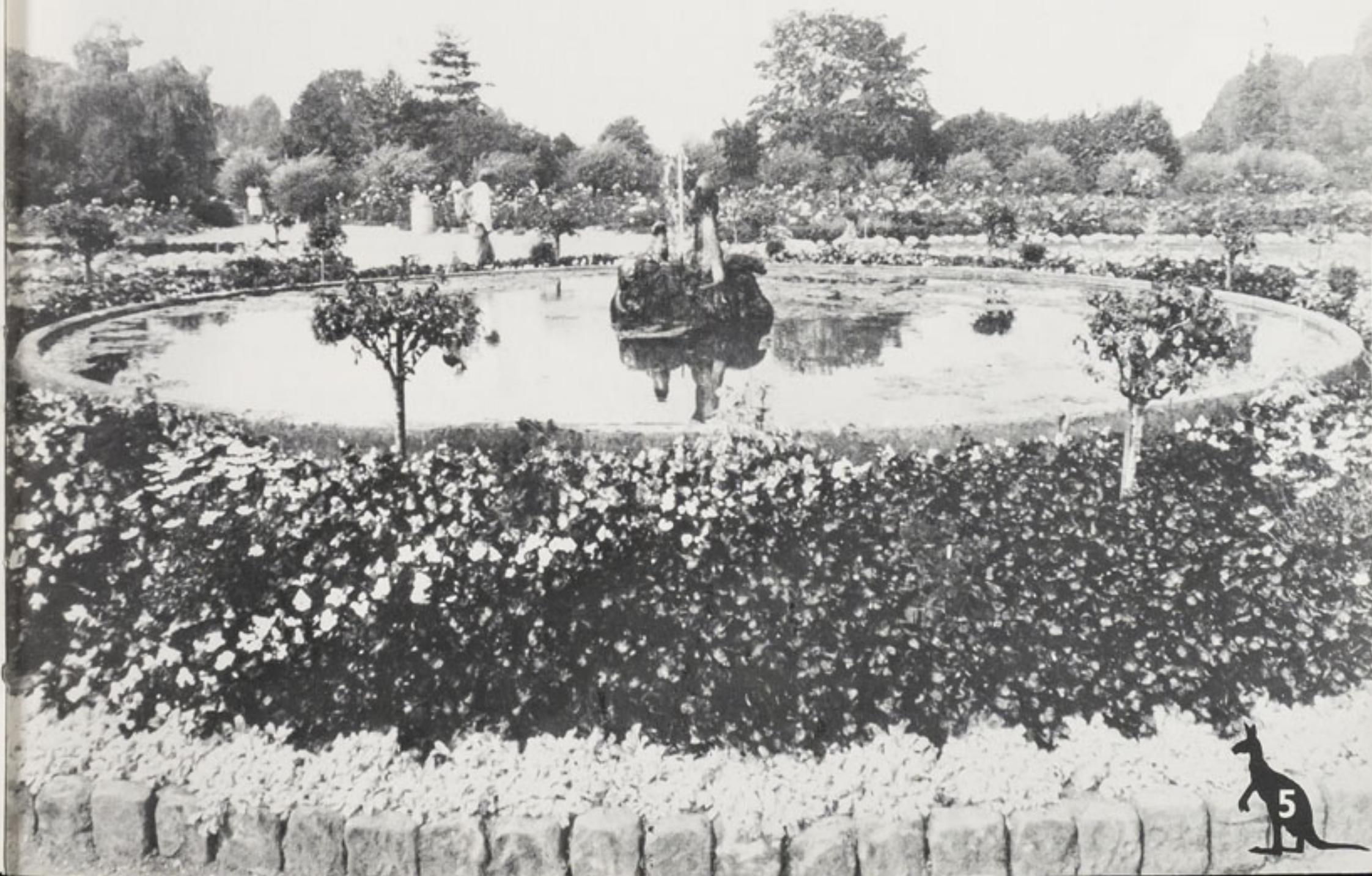
The Rodrigues fruit bats started rearing their young in satisfactory numbers during the year, after several very indifferent years.

We bred our first flamingos in 1987, with three chicks being reared. Unfortunately, one was hatched by a mixed pair of Chilean flamingo and Caribbean flamingo, so that it will have to be kept out of the breeding programme in the future, but the other two are pure bred Caribbean.

The most exciting addition to the Zoo was the pair of Congo peafowl from Antwerp, birds which were first described in 1936, but which are now breeding fairly well in zoos. Two more prehensile tailed skinks were born and an estimated 95 dwarf seahorses hatched in the Aquarium.

For the second year running the Gardens won their class in the North-west Britain in Bloom competition—and the judges came on a rainy day!

The Otter Fountain and pool, surrounded by colourful flower beds and dwarf bushes is one of the special features of the gardens.



The Animal Collection

A lot of work has been done to improve the behind-the-scenes facilities for the animals and their keepers. There is a great deal of work still to be done. About half of the animal kitchen facilities have been thoroughly modernised. All the heavy doors have been re-hung so that it is no longer a back-breaking exercise to open and close them. The Cattle House has been stripped of all its old internal ironwork and new pens have been built. The new roof to the upper gallery of the Tropical House

provided the opportunity to rebuild the bird cages in that area.

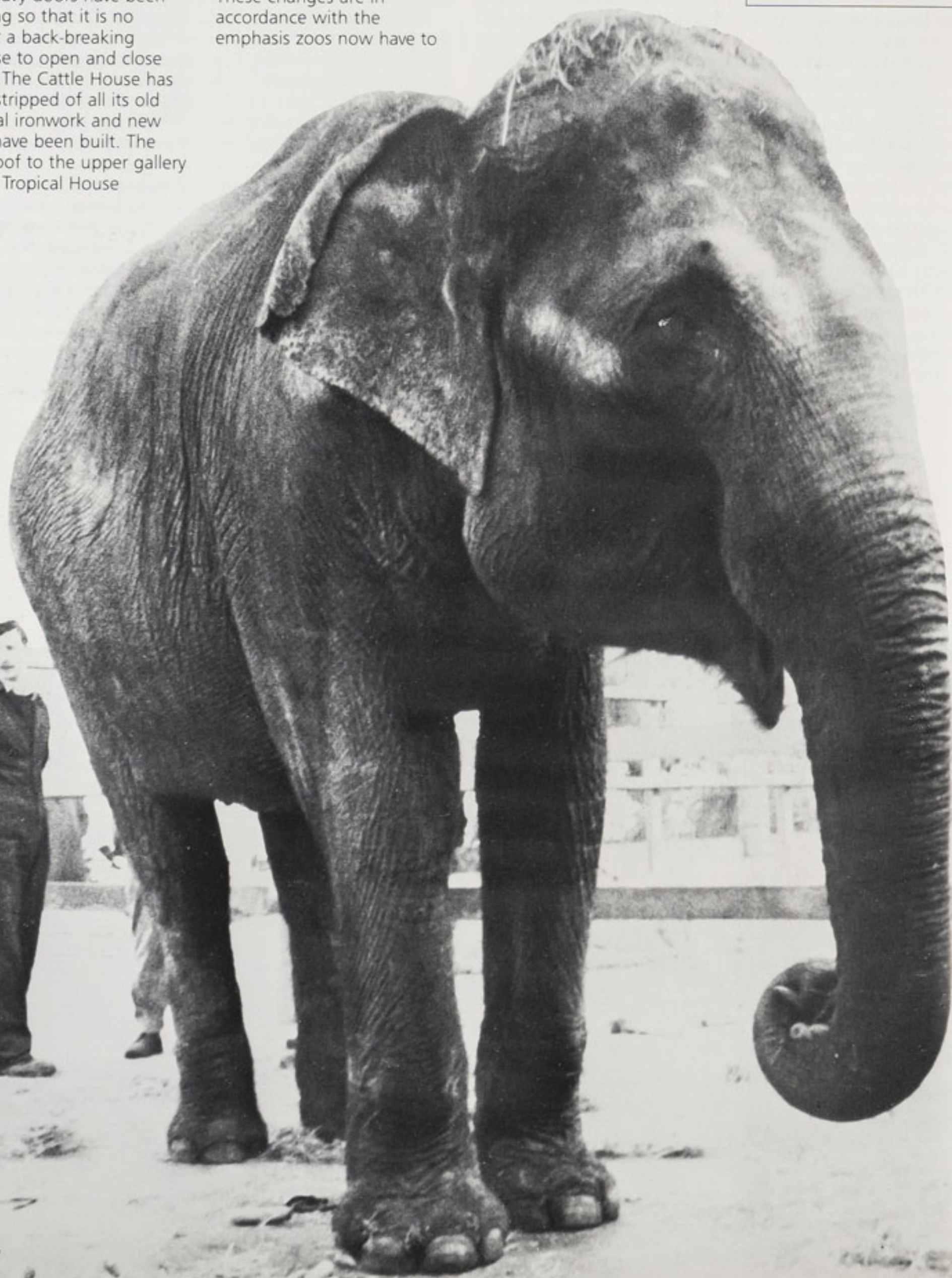
There was a slight reduction in the number of species held (531 compared to 545) but an increase in the number of specimens (5,479 compared to 5,141). These changes are in accordance with the emphasis zoos now have to

give to ensure they can breed their own replacement stock.

In August a meeting was organised at Chester Zoo to which all zoos in the country which keep elephants were invited to attend. This was the first such meeting

concerning elephants and had an extremely high turnout, with the few collections not able to attend expressing

Kirsty—newly arrived from Scotland with keeper, Willie Patterson who stayed with us for two weeks to help her settle in.



great interest in the outcome. As a result there has been much progress made in ensuring that all elephants will have at least one companion, and the move of the Indian elephant 'Kirsty' from Glasgow to Chester arose out of this. The significance of the meeting was that not only the zoos in the National Federation of Zoological Gardens of Great Britain & Ireland which keep elephants but also all those zoos and safari parks which have not yet joined the Federation became involved in planning a long-term breeding programme. Our own male elephant 'Jubilee' has been mating with one of the females, though it is still enigmatic whether or not she is pregnant.

The group of Père David's Deer which were returned to China last year have now begun to breed and progress is being made towards the moment when they are released into the whole area of the Da Feng reserve.

During the year 149 species bred and 776 specimens were recorded as being born or having hatched and survived the initial 30 days which is taken as the arbitrary measure of successful breeding. These numbers include amphibia whose breeding was not reported last year but has been included this year. The figures for mammals are similar to last year, for birds they show a 10% increase, while those for the reptiles show a similar performance. The amphibians, which when they do breed do so in great

numbers, produced 323 surviving young in three species. Though the recording of numbers of individuals of fish and invertebrates is not practical, the recording of the species which are breeding is useful and has been included this year.

All three species of marsupials, the fruit bats, 14 out of 22 species of primates and five out of eight species of rodent bred last year (with two of the non-breeding species represented by only one animal in each!) Among the Carnivora it was very exciting to have young meerkats and margay. Jungle cat, both species of lynx, puma and leopard also bred. Another sealion was born and another Brazilian tapir. Llama and guanaco both produced young as did all our deer species except Chinese water deer which are represented by three males only. Amongst the

antelopes and 'cattle' species all bred except the Congo buffalo and the single gaur.

In the bird collection we are making much more use of the incubator than before, though this is highly labour intensive. As a result we have achieved more hatchings. Species hatched this way included ostrich, rhea, tinamou, most of the waterfowl, Andean condor, the pheasants, sarus crane and great horned owl. In two species, Humboldt's penguin and coledo mynah, the eggs were parent hatched but the young were handreared.

Among the reptiles and amphibia, the two prehensile-tail skinks born and the three red-eyed tree frogs were particularly satisfying. In the Aquarium, we bred the marine dwarf seahorses as well as overcoming the difficulties presented by the frontosas and the Congo tetras.

MEMBERSHIP AS AT 31st DECEMBER 1987

Life Members	178
Honorary Members	9
Members of more than 25 years standing and over pensionable age	25
Annual Members	952 1164
Associate Members	23
Junior Members	567 590
TOTAL (all categories)	1754



This zebra is the logo of the National Federation of Zoological Gardens of Great Britain and Ireland. The Federation links societies in co-operative breeding and joint management projects as well as helping promote the interests of its members.

Puma and her cub—a welcome success in 1987 for the Cat House.



Estate Divison

Once again the Gardens won their category of the Britain in Bloom Competition. There has been continued rejuvenation and renewal and, behind the scenes, a new 2,200 sq ft greenhouse complete with new gas fired heating has been built to replace two of the old ones.

With visitor attendance 17% up, the Groundstaff had to supervise the parking of a lot of extra cars (at peak times on bank holidays cars can be arriving at the rate of one every two seconds!). Some 'tail backs' occurred at bank holiday peaks, but these only amounted to three or four hours over the whole year and we believe we were more efficient than ever before.

The extra visitors drop extra litter. Modern forms of packaging do not help. The answer will be to provide more, bigger and better bins, and more quiet exhortations not to drop litter.

The Maintenance and Works Department had a lot to do. Fifty three separate jobs were charged to capital and innumerable repair and maintenance jobs were undertaken. Modernising the working areas and animal quarters into easy to clean, easy to heat, safe facilities continued.

Among the other major jobs were the fish store, the first stages of the Parrot House re-roofing and re-fitting, re-roofing part of the Tropical House, completion of the perimeter fence and gates, work with the Ape House, new animal kitchens, siting and installing new mobile classrooms and the bird isolation hospital and upgrading of staff accommodation at Caughall Farmhouse and Upton Heyes cottages.

The amount of energy being used has increased but is being used a lot more efficiently and is being purchased more cheaply. The total energy bill, which was £153,000 in 1981, was only £127,000 in 1987, a

reduction after adjusting for inflation of about 39%. The elephant, rhino and monkey houses were heated more effectively. New, more efficient heaters are being installed and greater attention is being given to insulation and the prevention of heat loss by convection. We are particularly grateful for advice from Mr. Philip Janes, Energy Consultant, who retired during the year.



Subis—the baby Orang-Utan was soon great friends with Lee and Gerald Durrell.

Membership

The number of voting members of the Society rose by 157 to 1,159 during 1987.

There were eleven events organised for members during the year. In January Mr. Alan Kingsbury spoke on 'A Tanzania Safari'; in February Mrs. Valerie McFarland spoke on 'Wildlife in Alaska'; in March Mr. Pat Wisniewski, Education Officer at Martin Mere, spoke on 'Amphibians in Perspective' and in April the Director gave his review of the year. The Annual General Meeting was held in May and during June and July three 'walkabouts' were held by the Director, the Curators and Head Gardener. In September a group of 41 members and staff visited Twycross Zoo where they were made most welcome by the Director, Miss Molly Badham, and the Head of Education, Mr. Malcolm Whitehead. In October Lee and Gerald Durrell addressed an audience of over 400 in a marquee on the lawn on the role zoos have to play in modern conservation. The year ended with a Christmas lunch after which the Director sketched the future planning of the Zoo.

Adoptions

We now have over 1300 individual adoptors, with 466 new ones joining in 1987, far too many for us to list individually. We raised £37,265 towards the animal feeding, a 28% increase over 1986. There are additional details of our adoption scheme—and also of sponsorship—on the outside back cover.

Marketing Division

In a buoyant year, all trading areas did well. In overall sales, catering provided most revenue, showing a handsome 22% increase in net contribution on sales 29% above 1986. Sales of ice cream rose by 50%, with additional sites and the new 'Cotswold Farm' in Jubilee Square. Michèle O'Sullivan's new team ran the Oakfield with great panache, nearly doubling sales with a sparkling December almost 'fully booked'.

The record Easter tested our shops, with the new Fountain concourse refit completed just in time. A new Kodak kiosk close to the Monkey house, and a popular coster's 'barrow' at the North Gate helped boost sales, by 47% with net contribution 38% up. Books more than doubled, and with active help from Kodak, photographic sales were almost 50% above 1986.

Sales of guides were excellent, the net contribution more than doubled, and the waterbuses provided a useful increase of 13% in net contribution.

Our advertising campaign had two new TV commercials from our agency, Williams, Barber & Bird, backed by regional and local press, using the 'trek around the world' theme. Party Office coped admirably with ever increasing enquiries and bookings. The photographic contest, organised by Miss Jean Dixon, was a huge success. We welcomed the World Wildlife Fund's charity walkers again, and hosted our Fellowship Day for the disabled—spoiled somewhat by the rain.

Our annual consumer research survey confirmed that we offered excellent value for money. Seven out of ten respondents were aware of our publicity, and over two thirds of visitors spent between four and six and a half hours in the Zoo.



Education Division

The year has seen a gradual evolution of our work into two major sections—that aimed at those within the formal education system and that aimed at the general public. Inevitably, there are areas of overlap.

Numbers visiting in educational parties soared from 50,776 in 1986 to 85,867 in 1987. The major factor must have been the ending of the teachers' industrial action.

However, that action seems to have left a legacy of many visits being compressed between about 11.00 a.m. and 2.00 p.m. This has its effect on the numbers which can be taught by the Zoo teachers. These were down, from 11,834 in 1986, to 9,418 in 1987 yet we had to turn down bookings requested for several thousand pupils.

Around the Zoo one sees clear indications of the popularity of the educational materials, especially teacher's packs, produced by the Division. These really are complete "do-it-yourself" kits for teachers. Because they do not rely on our own teaching staff being available they had an unlimited potential.

Taking the above three points together has helped us to define our policy even more precisely. We shall concentrate our efforts to support teachers by the production of materials and the running of courses and we shall aim to teach a maximum of ten thousand pupils a year. In these ways, we can provide for far more visitors from the formal education system than we could possibly do if we taught all the children ourselves. The volunteer programme, FEDS, devised particularly for the general public, completed its first full year. Additional volunteers were taken on—and of course a few dropped out. Further activities were added, the "Bird Cart", parallel to the "Tropical House Cart" and a "Let's Make Centre"—a young children's craft centre. Tour bookings have been disappointing but other activities have gone well. Over the year the FEDS have made contact with almost 50,000 members of the public. The society is very grateful to them all.

1987 also saw the start, in a very small way, of liaison with some of the Animal Division staff and the first simple interpretative boards produced by the Division. The end of the year saw the first steps in working with the Marketing Division producing the first educational materials specifically for sale in the shops.

The staffing of this Division remained as for 1986 except for the addition of a part-time zoo employee as Head of Division Administration.

The facilities were considerably improved. The loan of one 30ft foot and one 80 foot mobile classroom by Cheshire County Council has been greatly appreciated. Following their arrival on site in late July, renovation, decorating, furnishing and setting up took up the remaining months of the year.

Junior members reach the sea at Formby on their most successful Ainsdale Nature Reserve expedition.

Staff

Staff were involved in many outside events. Lectures were given to university students and to extra-mural courses. The Director gave the biennial Share-Jones lecture to the University College of North Wales Bangor, and in November he attended at the invitation of Ueno Zoo, Tokyo, the 2nd World Symposium on the Giant Panda.

The Curator of Birds now represents Chester Zoo as a member of the Congo Peafowl Trust and attended its Members' Meeting at Rotterdam, and continued as a member of the Avicultural Advisory Committee, Martin Mere; the Incubation Research Group, and as a committee member of the Chester and District Ornithological Society and their representative on the Cheshire Ornithological Association.

The Financial Controller and the Marketing Manager joined the National Federation of Zoos European study tour in October visiting eight collections in Germany, Austria and Switzerland.

Two members of staff retired. Mr. Horace Cunliffe, head Groundsman, after five years, and Mr. Eric Durrant, a member of the Groundstaff, after six years. We wish them both a long and happy retirement.

Junior Club

During 1987 membership swelled to almost 600. Activities ranged from fossil-hunting amongst the Derbyshire hills, scouring the Ainsdale nature trail in search of rare reptiles and amphibians to the every-popular events within the Zoo: 'Day with a Keeper', 'Tracks & Signs' (plaster casts being taken from spoor of some of our exotic residents) and 'Moth Trapping Evenings' (around a huge barbeque). The 'Sponsored Walk' in July was hugely successful, raising over £400 for the Zoo's development funds. Between 60 and 130 youngsters attended each of the meetings and the society is very grateful for the volunteers who help make the Club work.



Council Committees & their Terms of Reference

EDUCATION COMMITTEE

MEMBERS

Mrs. B.J. Jones (Chairman)
Mr. D.B. Edwards
Dr. J.S. Madden

Mr. W.F. Padget
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
Mr. G.K. Jump

Dr. J.A. 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. G.K. Jump
Mr. N.J.W. Wilson
Mrs. P. Cade (Staff)
Mr. C.M.N. Vere (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. 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. Edwards
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.

CONSULTANTS

Dr. J. Baker
Dr. J. Charles-Jones
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. J.H. Howatt
Mr. L.D.B. Bryceson Mr. A.L.B. Thomson
Mr. T.G.J. Brightmore 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) Mrs. B.J. Jones
Mr. E.A. Du Cros

ASSESSORS

Mr. M.J. Fairclough Mr. S.J. Green

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

Advertising Agency	Williams Barber & Bird, Liverpool.
Artist	G.L. Grandy, Chester.
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. Lovelock Mitchell & Partners, Chester. McCormick Associates, Chester.
Engineers	Giffords, Chester & Southampton.
Quantity Surveyors	Todd & Ledson, Chester.
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.
Legal Advisors Employment Law	Mace & Jones, Liverpool.
Legal Advisors Company Law	Walker, Smith & Way, Chester.
Computing	D. Kipping Ltd., Stockport
Pension Fund: Actuaries Fund Managers	Mercer Fraser & Co. Ltd., Liverpool. Fraser Green Ltd., London
Market Research Consultants	John Ardern Associates, Manchester.



The North of England Zoological Society

Balance Sheet as at 31st December 1987

	NOTES	31.12.87		31.12.86	
		£	£	£	£
FIXED ASSETS					
Tangible assets:	9				
Special buildings, enclosures and equipment		1,248,278		1,044,462	
Freehold property		379,990		322,108	
Animals		21,000		41,000	
			1,649,268		1,407,570
CURRENT ASSETS					
Stocks	10	97,642		76,400	
Debtors	11	36,922		34,297	
Balance at bank		3,949		3,752	
Cash in hand		5,082		6,808	
Trust fund bank account	12	47,462		34,155	
		191,057		155,412	
CURRENT LIABILITIES					
Creditors: amounts falling due within one year					
Current instalments due on loan	14	8,208		10,598	
Bank overdraft (secured)		597,457		484,918	
Trade creditors		107,372		52,556	
Taxes and social security costs		24,644		53,780	
Other creditors	14	20,889		1,169	
Accruals		27,301		22,452	
		785,871		625,473	
NET CURRENT LIABILITIES			(594,814)		(470,061)
TOTAL ASSETS LESS CURRENT LIABILITIES			1,054,454		937,509
Creditors: amounts falling due after more than one year	14		107,662		148,372
NET ASSETS			£946,792		£789,137
RESERVES					
Income and Expenditure account			860,593		718,982
Trust fund	12		47,462		34,155
Capital expenditure grants	13		38,737		36,000
			£946,792		£789,137

Approved by the Council on 25th March, 1988
A.L.B. Thomson – Chairman
M. R. Brambell – Director

The North of England Zoological Society Income and Expenditure Account for the year ended 31st December 1987

	NOTES	1987		1986	
		£	£	£	£
TURNOVER	2		3,113,465		2,483,482
Less direct costs of:—					
Catering		654,661		490,443	
Souvenir shops		291,912		192,206	
Animal welfare		577,022		490,526	
Garden upkeep		165,168		145,061	
			1,688,763		1,318,236
			1,424,702		1,165,246
Indirect costs (including £311,308 Maintenance) (1986 £258,329)			1,231,928		1,009,194
Operating surplus	3		192,774		156,052
Other income	5		25,052		30,056
			217,826		186,108
Interest receivable	6	1,713		1,162	
Interest payable	7	(57,928)		(78,572)	
			(56,215)		(77,410)
Surplus on ordinary activities			161,611		108,698
Extraordinary item	8		(20,000)		(20,000)
			141,611		88,698
Accumulated surplus brought forward			718,982		630,284
Accumulated surplus carried forward			£860,593		£718,982

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

We have audited the Accounts on pages 12 to 17 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 15 give a true and fair view of the state of the Society's affairs at 31st December 1987 and of its surplus and source and application of funds for the year then ended and comply with the Companies Act 1985.

25th March 1988.
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 1987

	1987		1986	
	£	£	£	£
SOURCE OF FUNDS				
Surplus for the year on ordinary activities		161,611		108,698
Adjustment for items not involving the movement of funds				
Depreciation	137,257		109,072	
Loss on sale of fixed assets	414		298	
		<u>137,671</u>		<u>109,370</u>
Total generated from operations		299,282		218,068
FUNDS FROM OTHER SOURCES				
Sale of fixed tangible assets	2,071		2,795	
Trust fund and capital expenditure grant	16,044		34,613	
		<u>18,115</u>		<u>37,408</u>
Total funds generated		<u>£317,397</u>		<u>£255,476</u>
APPLICATION OF FUNDS				
Purchase of fixed tangible assets		401,440		136,934
MOVEMENT IN WORKING CAPITAL				
Increase in stock	21,242		7,169	
Increase/(Decrease) in debtors	2,625		(5,620)	
(Increase) in creditors	(50,249)		(5,316)	
Decrease in creditors over one year	40,710		35,782	
		<u>14,328</u>		<u>32,015</u>
MOVEMENT IN LIQUID FUNDS				
(Decrease)/Increase in balance at bank and cash in hand	(1,529)		1,951	
Decrease in current instalments due on loans	2,390		1,679	
(Increase)/Decrease in bank overdraft	(112,539)		64,284	
Increase in Trust fund bank account	13,307		18,613	
		<u>(98,371)</u>		<u>86,527</u>
		<u>£317,397</u>		<u>£255,476</u>

The North of England Zoological Society

Notes to the accounts for the year ended 31st December 1987

1. ACCOUNTING POLICIES

There have been no changes in the accounting policies during the year.

(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 £4,109,721 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.

(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, 1987 to £21,000. It is intended to write off a further £20,000 in 1988 to bring the net book value at 31st December 1988 to £1,000.

(f) Leases

Where the Society enters into a lease which entails taking substantially all the risks and rewards of ownership of an asset, the lease is treated as a finance lease. The asset is recorded in the balance sheet as a fixed asset and is depreciated over its estimated useful life. Future instalments under such leases, net of finance charges, are included with creditors. Rentals payable are apportioned between the finance element, which is charged to the profit and loss account as interest, and the capital element, which reduces the outstanding obligation for future instalments.

All other leases are operating leases and the rental charges are taken to the profit and loss account on a straight line basis over the life of the lease.

(g) Stocks

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

(h) 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.

(i) 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:—

	1987 £	1986 £
Admission charges	1,616,816	1,379,789
Catering receipts	886,405	684,525
Souvenir receipts	437,311	297,161
Motor boat trips	34,853	31,618
Zoo guides	93,093	55,939
Members' subscriptions and entrance fees	16,785	11,845
Sundry income	28,202	22,605
	<u>£3,113,465</u>	<u>£2,483,482</u>

3. OPERATING SURPLUS

This is after charging:

Auditors remuneration			
Depreciation (other than animals) (see Note 1)			
Loss on sale of fixed assets			
Hire of equipment			
Operating lease rentals			

4. STAFF COSTS

Wages and salaries			
Social Security costs			
Other pension costs			

The average number of employees was as follows:—

	1987		1986	
	Permanent	Temporary	Permanent	Temporary
Administration	23	2	22	2
Maintenance and Gardens	49	14	44	11
Keeping	50	1	47	1
Catering and Shops	18	34	18	26
	<u>140</u>	<u>51</u>	<u>131</u>	<u>40</u>

5. OTHER INCOME

Zoo property rents		
Zoo farm rents (net)		

6. INTEREST RECEIVABLE

Bank deposit and money market interest		
--	--	--

7. INTEREST PAYABLE

Bank		
Finance Leases		
Bank loan not wholly repayable within five years		

8. EXTRAORDINARY ITEM

Extraordinary charge:		
Amount written off stock of animals		

9. TANGIBLE FIXED ASSETS

COST	Freehold Property	Buildings & Enclosures	Machinery & Equipment	Animals	Total
As at 1.1.87	322,108	1,726,710	437,922	149,685	2,636,425
Additions	57,882	258,908	84,650	(see below)	401,440
Disposals	—	—	(15,825)		(15,825)
As at 31.12.87	<u>£379,990</u>	<u>£1,985,618</u>	<u>£506,747</u>	<u>£149,685</u>	<u>£3,022,040</u>
DEPRECIATION					
As at 1.1.87	—	844,141	276,029	108,685	1,228,855
Provided during year	—	85,232	52,025	20,000	157,257
Disposals	—	—	(13,340)	—	(13,340)
As at 31.12.87	<u>£ —</u>	<u>£929,373</u>	<u>£314,714</u>	<u>£128,685</u>	<u>£1,372,772</u>
Net book value as at 31.12.87	<u>£379,990</u>	<u>£1,056,245</u>	<u>£192,033</u>	<u>£21,000</u>	<u>£1,649,268</u>
Net book value as 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>

Animal purchases of £11,028 (1986 £10,021) and sales of £13,033 (1986 £14,853) have been treated as revenue transactions.

Included in the total net book value of tangible fixed assets is £11,675 (1986 Nil) in respect of assets acquired under 'finance' leases. Depreciation for the year on these assets was £3,892 (1986 Nil).

10. STOCKS

Goods for resale
Consumables

1987	1986
£	£
68,366	54,146
29,276	22,254
<u>£97,642</u>	<u>£76,400</u>

11. DEBTORS

Trade debtors
Other debtors
Prepayments and accrued income

9,321	6,793
8,959	11,463
18,642	16,041
<u>£36,922</u>	<u>£34,297</u>

12. TRUST FUND

Balance at 1.1.87
Adoptions
Less Transferred to animal foods

1987	1986
£	£
37,265	29,222
37,265	29,222

Sponsorship
Donations and legacies etc
Transfers to capital expenditure grants

7,732	5,562
8,312	29,051
(2,737)	(16,000)

Balance at 31.12.87

<u>£47,462</u>	<u>£34,155</u>
----------------	----------------

13. CAPITAL EXPENDITURE GRANTS

Balance at 1.1.87
Transfers from Trust fund

1987	1986
£	£
36,000	20,000
2,737	16,000

Balance at 31.12.87

<u>£38,737</u>	<u>£36,000</u>
----------------	----------------

14. CREDITORS FALLING DUE AFTER MORE THAN ONE YEAR

Loan amounts repayable within five years
Loan amounts repayable after five years
Finance lease net obligations due from two to five years

1987	1986
£	£
32,832	42,392
73,873	105,980
957	—
<u>£107,662</u>	<u>£148,372</u>

The current portion of the loan amounting to £8,208 (1986 £10,598) is shown separately in the current liabilities and £6,306 (1986 Nil) re. finance lease obligations is included with other creditors. The loan is secured on the freehold property.

15. SHARE CAPITAL

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

16. STATUS

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

17. CAPITAL COMMITMENTS

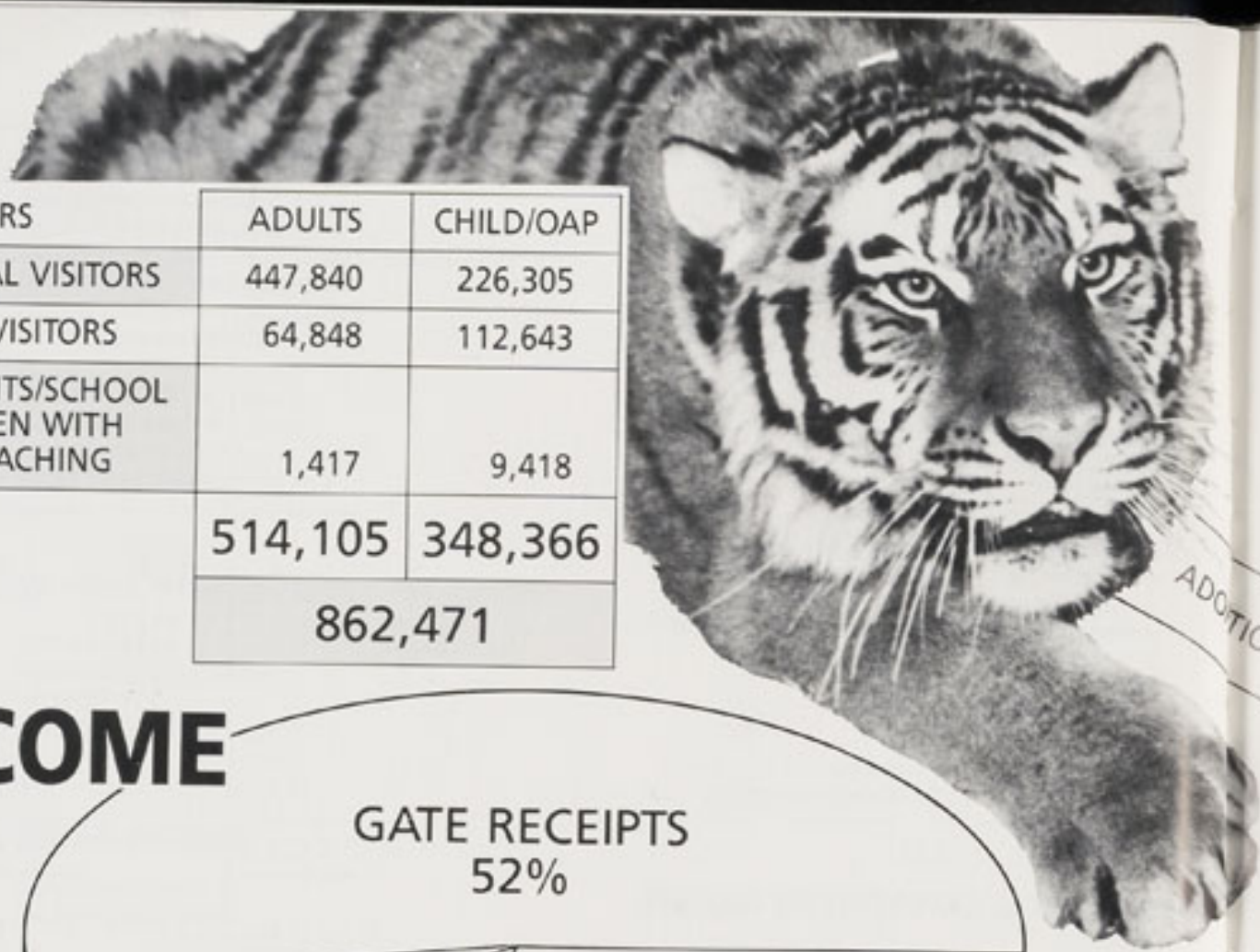
The estimated amounts of commitments for future capital expenditure are:

Under contracts
Authorised by the Council but not contracted

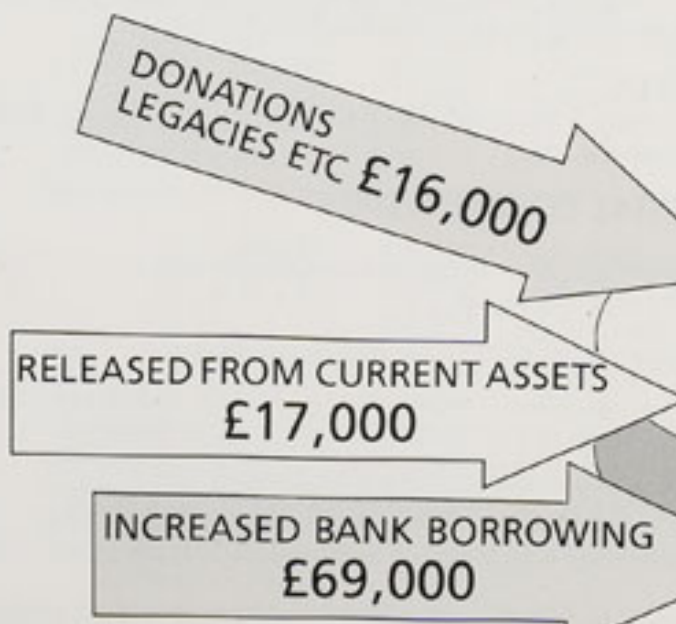
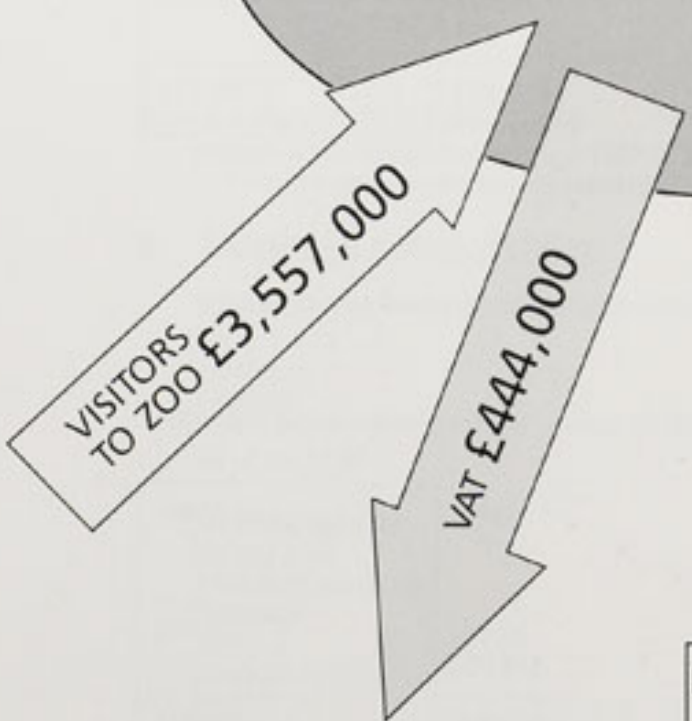
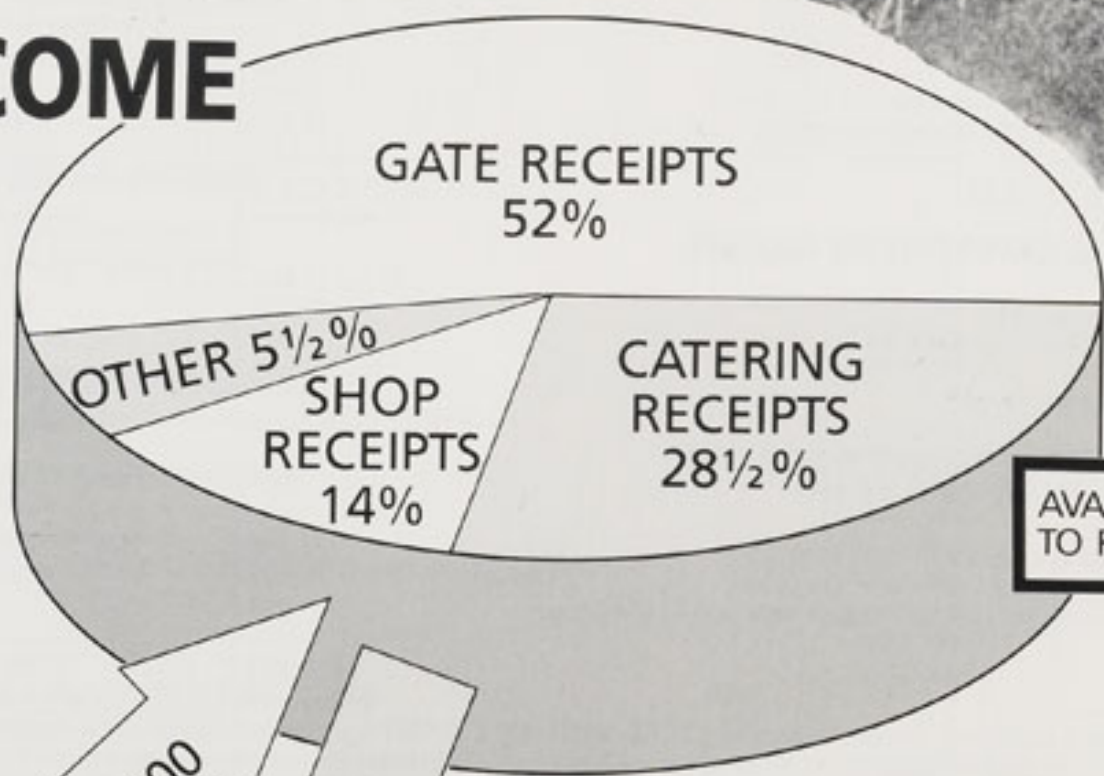
1987	1986
£	£
20,947	26,746
340,000	—
<u>£360,947</u>	<u>£26,746</u>
<u>£4,200</u>	<u>£ —</u>

There is an annual commitment in respect of an operating lease which expires within two to five years of

NUMBERS	ADULTS	CHILD/OAP
NORMAL VISITORS	447,840	226,305
PARTY VISITORS	64,848	112,643
STUDENTS/SCHOOL CHILDREN WITH ZOO TEACHING	1,417	9,418
	514,105	348,366
	862,471	



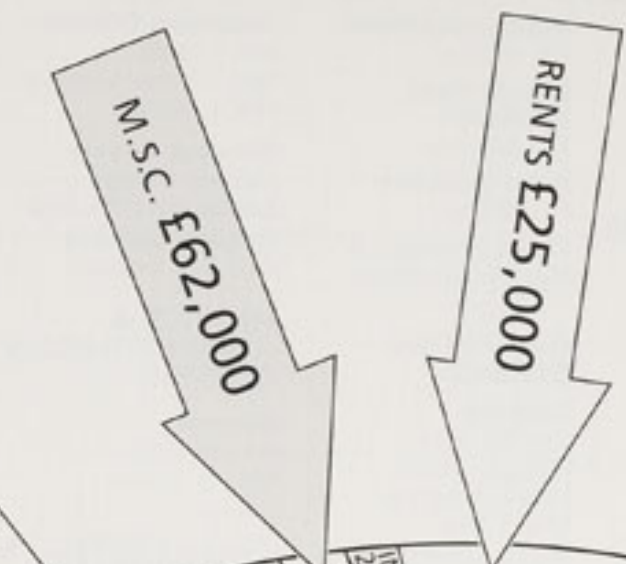
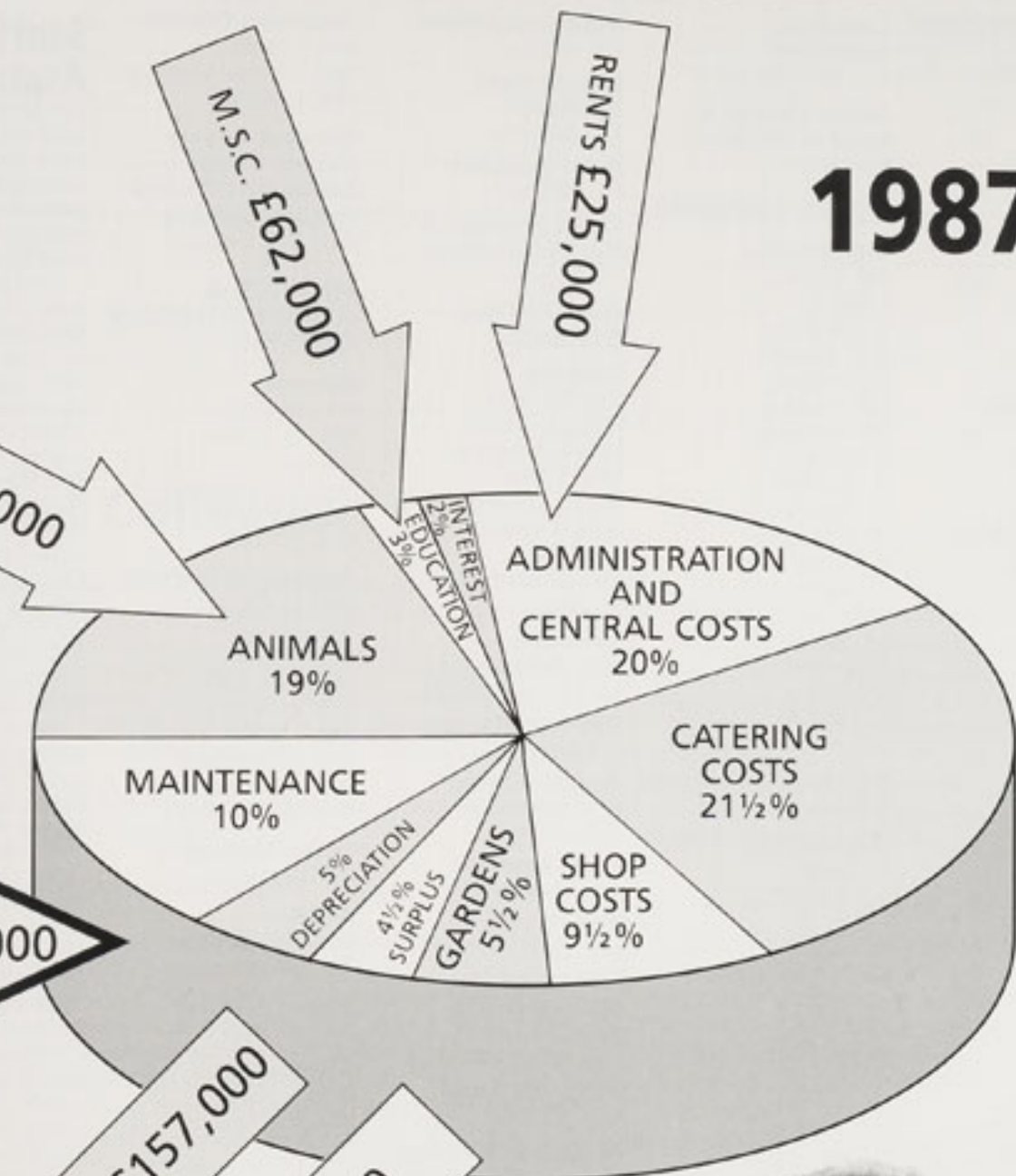
INCOME



AVAILABLE TO RUN THE ZOO £3,113,000

EXPENDITURE

1987



FUNDS FOR DEVELOPMENT £401,000



Staff as at 31st December 1987

ANIMAL DIVISION

Keeping Staff

W. Bailey
J.T. Bell
S.A. Blake
M. Cleave
S. Cook
Miss K.E. Davies
D.S. Dinning
Miss J. Dodd
A.C. Gooch
D.I. Haw
T. Hayward
P. Howse
A.B. Hutchinson
M.F. Jones
C.G. Lavender
A. Lenihan
D.N. Manning
Miss I.A. McGeorge
C.J. McKenzie
W.D. McLeod
R. Merry
F.M. Molloy
P.I. Morris
N.W. Ormerod
R. Packwood
Miss R. Parker
Miss L. Peat
Miss B. Ramsay
T.L. Rowlands
B.L. Rowley
P.D. Rowley
R. Scott
A.J. Smith
V. Smith
M.J. Spencer
N. Spooner
M. Squires
P. Whalley
S.R. Williams
J.A. Willis
A. Woolham
A.R. Woodward

Aquarist

M.C. Crumpler

Herpetologist

K.W. Brown

Animal Supplies

D. Marsden
K.J. Newey

Animal Supplies Officer

J.A.C. Forrest

Animal Information

M.F. Coupe

Assistant Curator of Birds

P. James

Curator of Birds

Dr. R. Wilkinson

Curator of Mammals

N.G. Ellerton

Laboratory Technician

D.C. Dinning

Senior Curator & Head of Division

P.A. Wait

ESTATE DIVISION

Maintenance

F.W. Blythe
I. Blythe
C.J. Bridges
G.G. Green
D.C. Holder
G.R. Hughes
P.T. Hutchins
D. Kinsella
A. Lennon
G. Mayers
W.A. Mayers
B. McCone
J.E. Parry
G.E. Scott
L.L. Shepherd
J. Spencer
D.A. Toms
N. Whitley
A.R. Wilton

Maintenance Foreman

P. Brady

Groundstaff

P. Conde
K.J. Coriam
L.J. Ferris
E. Hughes
Mrs. F.M. Hughes
M. Hughes
P. Hughes
W.T. James
P. Powell
W. Shone
J. Whitby
F. Woodworth
Mrs. F.M. Woodworth

Head Groundsman

R. G. Head (Acting)

Gardens

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

Foreman Gardener

F.R. Morgan

Deputy Head Gardener

J.G. Johnson

Head Gardener

E.J. Rudman

Estate Engineer & Head of Division

F.S. Carson

MARKETING DIVISION

Catering

Mrs. M. Askew
Miss W. Gibson
Miss G.J. Hopley
Mrs. P. Keay
Mrs. D. Lenihan
Miss A. Livesley
B.G. Lloyd
Mrs. B. Smith
A. Viner

Manager—The Oakfield

Miss M. O'Sullivan

Catering Manager

C. Horton

Assistant Retail Manager

D. Emmerson

Retail Manager

A.S. Rowlands

Party Office

Mrs. D. Cooke
Miss L. Raynor

Membership & Adoptions

Mrs. M.M.A. Allsopp

Public Relations

Mrs. P. Cade

Marketing Manager & Head of Division

C.M.N. Vere

EDUCATION DIVISION

M.S.C. Programme

P. Adams
Miss J. Capleton
Miss J. Clarke
D. Cross
N. Hough
Miss K. Johnson
Miss J. Kelly
Mrs. P. Mitchell
Mrs. L. Murton
Miss A. Pilcher
M. Powleson
D. Robinson
K. Walker
Miss C. Whitney

Society Staff

Mr. G. Bellis
Mrs. M.E. Jones
Mrs. M. McManus

Education Officers

Mrs. S. Ruks
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. N. Baker
Mrs. D. Coriam
J. Green
Mrs. E.C. Manning
J. O'Reardon
G.A. Pollard

Accounts & Cashiers

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

Stores Manager

P.J. Thompson

Assistant Security Officer

T.E. Lawley

Security Officer

T.A. Johnson

Secretarial

Miss L. Hart
Miss P.A. 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 December.

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.

1987 Committee

Mr. F.W. Blythe
Chairman
Mrs. C.M. Lang
Vice Chairman/Oakfield
Mr. P. Powell
Groundstaff
Mr. T. Hayward
Animal Division
Mr. B.G. Lloyd
Catering
Mr. F.J. Rowlands
*Gardens**
Mr. L.L. Shepherd
Maintenance
Mrs. M.M.A. Allsopp
Minutes

*resigned during the year.



Stock at 31st December 1987

	Species	Specimens	Species recorded breeding and rearing	Specimens recorded bred and surviving 30 days
Mammals	93	716	47	176
Birds	177	784	55	284
Reptiles	58	302	8	86
Amphibians	10	287	3	230
Fish	163	c.3032	25	—
Invertebrates	30	358	11	—
TOTALS	531	5479	149	776

Animal Collection

In the following pages the animals are listed as follows:

An asterisk indicates a species being managed as part of a joint management project with other collections.

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 1986 Annual Report, but in a few instances resexing and the detection of earlier minor errors have resulted in corrections 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.

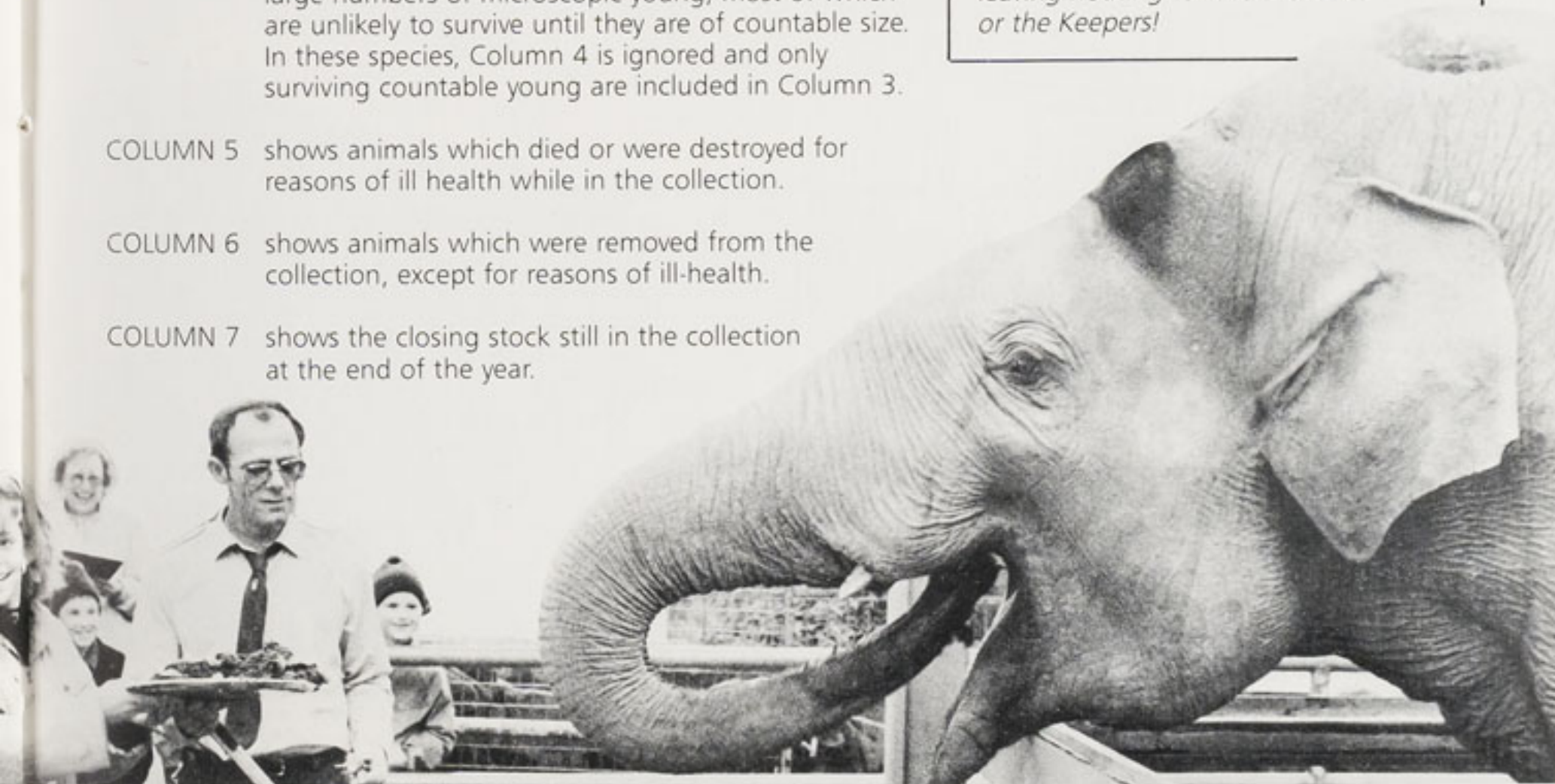
COLUMN 6 shows animals which were removed from the collection, except for reasons of ill-health.

COLUMN 7 shows the closing stock still in the collection at the end of the year.

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 - F, unsexed animals and young stock are listed under heading - Y/?

It's Jubilee's 10th Birthday—and the 1st Weston Rhyn Brownies from Shropshire—who share the date—also share the fun and a cake that they have baked. But Jubilee grabbed it all, leaving nothing for the Brownies or the Keepers!



MAMMALS

1 STOCK 1/1/1987
 2 RECEIVED
 3 BORN/H*CH
 4 D.N.S 30 DAYS
 5 DEATHS OTHER
 6 DISPOSALS
 7 STOCK 31/12/1987

M F Y/? M F Y/? M F Y/? M F Y/? M F Y/? M F Y/? M F Y/?

MONOTREMATA

Australian Echidna *Tachyglossus aculeatus* 1 1 0 1 1 0

MARSUPIALIA

Tassar Wallaby *Macropus eugenii* 4 6 0 0 1 0 1 3 0 1 0 0 2 4 0
 Red-necked Wallaby *Macropus rufogriseus* 5 7 4 0 0 6 3 1 0 8 10 0
 Western Grey Kangaroo *Macropus fuliginosus* 3 3 0 0 1 1 2 1 0 1 3 1

SCANDENTIA

Common Tree Shrew *Tupaia glis* 1 1 0 0 1 0 1 0 0

CHIROPTERA

Rodrigues Fruit Bat *Pteropus rodricensis* 11 5 0 1 1 5 1 0 0 1 1 0 10 5 5

PRIMATES

Slow Loris *Nycticebus coucang* 3 2 0 3 2 0
 Ring-tailed Lemur *Lemur catta* 12 20 0 5 5 2 0 5 2 1 5 0 16 15 0
 White Fronted Lemur *Lemur fulvovus albifrons* 1 2 0 0 0 1 0 0 1 1 2 0
 Ruffed Lemur *Lemur variegatus* 2 1 0 0 0 2 0 0 2 1 0 0 1 1 0
 Lesser Bushbaby *Galago senegalensis* 5 2 2 1 0 0 4 0 0 3 3 0
 Common Marmoset *Callithrix jacchus* 4 2 0 4 2 0
 Cotton Top Tamarin *Saguinus oedipus* 4 1 0 0 0 5 0 0 1 5 2 2
 White-lipped Tamarin *Saguinus labiatus* 4 2 0 0 0 5 0 0 2 0 1 0 4 2 2
 Douroucouli *Aotus trivirgatus* 1 1 0 1 1 0
 White-fronted Capuchin *Cebus albifrons* 5 6 0 0 0 1 5 6 1
 Spider Monkey (black face) *Ateles paniscus chamek* 3 4 0 3 4 0
 Lion-tailed Macaque *Macaca silenus* 4 2 0 1 0 0 3 2 0
 Barbary Macaque *Macaca sylvanus* 4 7 0 0 0 1 4 7 1 0 0 0
 Celebes Macaque *Macaca niger* 2 3 0 1 0 0 3 3 0
 Hamadryas Baboon *Papio hamadryas* 4 6 0 3 0 1 2 0 0 2 1 0 3 5 1
 Sykes Guenon *Cercopithecus albogularis* 3 2 0 0 1 0 1 1 0 1 1 0 1 1 0
 De Brazza Monkey *Cercopithecus neglectus* 4 4 0 1 1 0 3 3 0
 Talapoin Monkey *Miopithecus talapoin* 2 6 1 0 1 0 3 5 0
 Patas Monkey *Erythrocebus patas* 3 3 0 2 0 0 1 0 0 4 3 0
 Chimpanzee *Pan troglodytes* 6 14 0 2 3 0 1 0 0 2 0 0 5 16 0
 Orang utan (Bornean Form) *Pongo pygmaeus pygmaeus* 2 4 0 0 2 0 0 2 0
 Orang utan (Sumatran Form) *Pongo pygmaeus abelii* 3 2 0 0 1 0 1 0 0 2 2 0 2 3 0

RODENTIA

Malay Giant Squirrel *Ratufa bicolor* 1 0 0 1 0 0
 Fire-footed Squirrel *Funisciurus pyrropus* 1 2 0 1 2 0
 Prairie Marmot *Cynomys ludovicianus* 0 0 135 0 0 35 ← estimated → 0 0 40 0 0 130
 Beaver *Castor canadensis* 1 0 0 1 0 0
 African Crested Porcupine *Hystrix cristata* 3 3 0 2 4 0 1 1 0 1 1 0 2 2 0 1 3 0
 Capybara *Hydrochoerus hydrochaeris* 1 1 3 1 0 0 0 0 9 0 0 2 0 0 2 2 0 0 1 3 5
 Golden Agouti *Punctata punctata* 2 3 2 0 2 1 0 0 1 0 2 0 2 5 0
 Coypu *Myocastor coypus* 12 11 1 5 1 0 8 4 0 3 0 0 7 8 0
 Mountain Viscacha *Lagidium viscaccia* 2 0 0 2 0 0

CARNIVORA

Dingo *Canis familiaris* 2 1 0 1 1 0 1 0 0
 Arctic Fox *Alopex lagopus* 2 0 0 2 0 0
 Brown Bear *Ursus arctos* 2 3 0 0 1 0 2 0 0
 Polar Bear *Thalarctos maritimus* 1 1 0 1 1 0
 Common Raccoon *Procyon lotor* 3 1 0 3 1 0
 Coati *Nasua nasua* 3 4 0 1 4 3 0 0 3 1 2 0 3 6 0
 Kinkajou *Potos flavus* 2 3 0 2 3 0
 Small-clawed Otter *Aonyx cinerea* 1 1 0 1 1 0
 Striped Skunk *Mephitis mephitis* 1 0 0 1 0 0
 Binturong *Arctictis binturong* 1 1 0 1 1 0
 African Banded Mongoose *Mungos mungo* 4 3 0 4 3 0
 Dwarf Mongoose *Helogale undulata* 1 1 15 0 0 1 0 0 2 1 1 12
 European Polecat *Mustela putorius* 3 1 7 3 1 1 0 0 1 3 3 0 7 2 0
 Meerkat *Suricata suricata* 1 4 5 0 0 9 0 0 2 0 1 0 0 0 2 1 3 10
 Margay *Felis wiedi* 2 2 0 0 1 0 0 1 0 1 1 0 1 1 0
 Jungle Cat *Felis chaus* 3 6 0 0 2 0 2 5 0 1 3 0
 Wildcat (Scottish form) *Felis sylvestris* 1 2 0 1 2 1 1 0 1 1 4 0
 Ocelot *Felis pardalis* 1 2 0 1 1 0 1 0 0 0 1 0 1 2 0
 Caracal *Felis caracal* 3 2 0 1 0 0 3 1 0 1 1 0
 European Lynx *Felis lynx* 2 4 0 0 1 0 0 1 0 1 2 0 1 2 0
 Serval *Felis serval* 1 3 0 1 3 0
 Geoffroy's Cat *Felis geoffroyi* 3 4 0 0 1 0 3 3 0
 Jaguarundi *Felis jagouarundi* 1 3 0 1 3 0
 Puma *Felis concolor* 1 2 0 1 0 0 0 1 0 1 2 0
 Lion (African form) *Panthera leo* 2 4 0 1 1 0 1 1 0 1 3 0
 Tiger (Siberian form) *Panthera tigris altaica* 1 1 0 0 1 0 1 2 0
 Leopard (Black form) *Panthera pardus pardus* 1 1 0 0 2 0 1 3 0
 Leopard (Chinese form) *Panthera pardus japonensis* 1 1 0 1 1 0 0 0 0
 Leopard (Persian Form) *Panthera pardus saxicolour* 0 0 0 1 1 0 1 1 0
 Cheetah *Acinonyx jubatus* 1 0 0 1 3 0 1 0 0 1 3 0

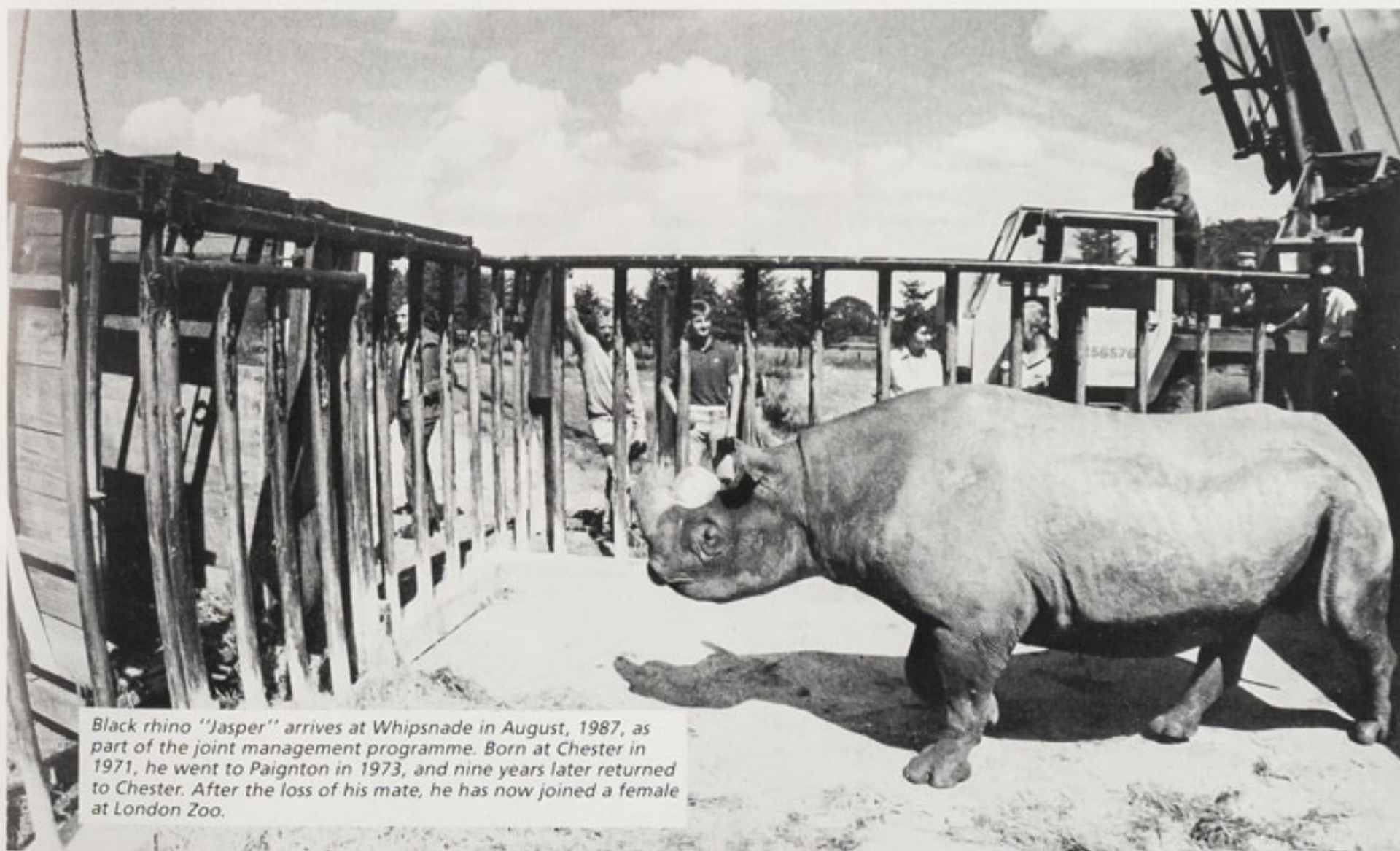


MAMMALS (CONTINUED)

		1			2			3			4			5			6			7		
		STOCK 1/1/1987			RECEIVED			BORN/H'CH			D.N.S 30 DAYS			DEATHS OTHER			DISPOSALS			STOCK 31/12/1987		
		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				1	0	0				1	5	0
PROBOSCIDEA																						
Indian Elephant	* <u>Elephas maximus</u>	1	4	0	0	1	0													1	5	0
PERISSODACTYLA																						
Przewalski's Horse	* <u>Equus przewalskii</u>	1	3	0																1	3	0
Common Zebra	<u>Equus burchelli boehmi</u>	1	5	0				1	1	0	1	1	0	0	1	0				1	4	0
Zebroid (Horse x Zebra)	<u>Equus (hybrid)</u>	1	0	0										1	0	0				0	0	0
Onager (Persian form)	<u>Equus hemionus onager</u>	1	2	0	1	1	0													2	3	0
Onager (x bred)	<u>Equus hemionus</u>	1	1	0													1	1	0	0	0	0
Brazilian Tapir	* <u>Tapirus terrestris</u>	2	2	0				1	0	0										3	2	0
Black Rhinoceros	* <u>Diceros bicornis</u>	2	1	0													1	0	0	1	1	0
White Rhinoceros	<u>Ceratotherium simus</u>	1	0	0																1	0	0
Indian Rhinoceros	* <u>Rhinoceros unicornis</u>	0	0	0	1	0	0													1	0	0
ARTIODACTYLA																						
Collard Peccary	* <u>Tayassu tajacu</u>	3	4	0										0	1	0				3	3	0
Common Hippopotamus	<u>Hippopotamus amphibius</u>	1	1	0																1	1	0
Llama	<u>Lama glama</u>	1	3	0				0	1	0										1	4	0
Guanaco	<u>Lama guanicoe</u>	2	12	0				4	3	0				1	0	0	3	5	0	2	10	0
Bactrian Camel	* <u>Camelus bactrianus</u>	1	1	0																1	1	0
Arabian Camel (7 hybrid)	<u>Camelus dromedarius</u>	1	1	0										1	1	0				0	0	0
Axis Deer	* <u>Cervus axis</u>	6	3	0	0	2	0	0	1	0				1	2	0	2	0	0	3	4	0
Wapiti	<u>Cervus canadensis</u>	1	4	0	1	0	0	0	2	0				0	1	0	1	0	0	1	5	0
Fere David's Deer	* <u>Elaphurus davidianus</u>	3	3	0	1	0	0	1	0	0							1	0	0	4	3	0
Reindeer	<u>Rangifer tarandus</u>	5	10	0				4	4	0	1	0	0	0	3	0	5	2	0	3	9	0
Chinese Water Deer	* <u>Hydropotes inermis</u>	3	0	0																3	0	0
Giraffe	* <u>Giraffa camelopardalis</u>	2	2	0																2	2	0
Eland	<u>Taurotragus oryx</u>	2	7	0				6	4	0	4	0	0	1	2	0	1	0	0	2	9	0
Nilgai	* <u>Boselaphus tragocamelus</u>	4	8	0				4	4	0	3	2	0	0	1	0	1	0	0	4	9	0
Ankole Cattle (domestic)	<u>Bos taurus</u>	2	5	0	1	0	0	1	0	0							2	1	0	2	4	0
American Bison	* <u>Bison bison</u>	8	9	0				1	4	0							6	2	0	3	11	0
Congo Buffalo	* <u>Syncerus caffer nanus</u>	1	1	0																1	1	0
Gaur	<u>Bos gaurus</u>	1	0	0										1	0	0				0	0	0
Red Lechwe	<u>Kobus lechwe</u>	13	16	0				4	9	0	0	1	0	4	4	0	9	0	0	4	20	0
Wildebeeste	<u>Connochaetes taurinus</u>	2	2	0				1	1	0	1	0	0				1	0	0	1	3	0
Blackbuck	<u>Antelope cervicapra</u>	4	10	0				1	5	0	0	1	0	0	2	0	1	0	0	5	12	0
Arabian Gazelle	* <u>Gazella gazella arabica</u>	2	4	0	1	0	0	1	1	0										4	5	0
		764			20			222			46			120			124			716		

Number of Specimens - 716

Number of Species - 93



Black rhino "Jasper" arrives at Whipsnade in August, 1987, as part of the joint management programme. Born at Chester in 1971, he went to Paignton in 1973, and nine years later returned to Chester. After the loss of his mate, he has now joined a female at London Zoo.

BIRDS

1 STOCK 1/1/1987
 2 RECEIVED
 3 BORN/H'CH
 4 D.N.S 30 DAYS
 5 DEATHS OTHER
 6 DISPOSALS
 7 STOCK 31/12/1987

M F Y/? M F Y/? M F Y/? M F Y/? M F Y/? M F Y/? M F Y/?

STRUTHIONIFORMES

Ostrich *Struthio camelus* 1 1 0 0 1 7 0 0 5 0 0 2 1 2 0

RHEIFORMES

Common Rhea *Rhea americana* 1 2 0 0 0 13 0 0 4 0 0 1 0 0 6 1 2 2

CASUARIIFORMES

Emu *Dromaius novaehollandiae* 1 0 2 0 1 0 0 0 2 1 1 0

TINAMIFORMES

Chilean Tinamou *Nothoprocta serripennis* 0 0 12 0 0 18 0 0 7 0 0 1 0 0 10 0 0 12

SPHENISCIFORMES

Humboldt's Penguin *Spheniscus humboldti* 9 10 10 0 0 15 0 0 2 1 0 1 0 0 12 8 10 10

CICONIIFORMES

Little Egret *Egretta garzetta* 1 1 0 1 0 0 1 1 0 1 0 0 1 0 0

Night Heron *Nycticorax nycticorax* 3 3 0 2 2 0 1 0 0 3 3 0

White Stork *Ciconia ciconia* 2 2 0 0 0 3 0 0 1 0 0 0 1 2 0

Sacred Ibis *Threskiornis aethiopicus* 0 0 10 0 0 3 0 0 1 0 0 1 0 0 12 0 0 12

Straw-necked Ibis *Threskiornis spinicollis* 0 0 1 0 0 1 0 0 0 0 0 1 0 0 0 0 0 0

Waldrapp Ibis *Geronticus eropos* 0 0 5 3 7 5 0 2 2 0 2 2 3 5 8

Common Spoonbill *Platalea leucorodia* 0 0 3 0 0 3 0 0 1 0 0 1 0 0 2 0 0 2

Chilean Flamingo *Phoenicopterus chilensis* 5 12 1 3 2 0 0 0 3 0 0 1 0 0 1 8 14 1

Caribbean Flamingo *Phoenicopterus ruber* 10 8 6 0 0 3 0 0 1 0 0 1 10 8 7

Caribbean x Chilean Flamingo *P.r.ruber x P.chilensis* 0 0 0 0 0 1 0 0 1 0 0 1 0 0 1

ANSERIFORMES

White-faced Whistling Duck *Dendrocygna viduata* 4 4 0 0 0 0 0 0 0 4 4 0

Fulvous Tree Duck *Dendrocygna bicolor* 2 4 0 0 0 10 0 0 3 0 0 3 0 0 4 2 4 0

Black Swan *Cygnus atralis* 1 1 0 0 0 4 0 0 1 0 0 1 1 1 2

Mute Swan *Cygnus olor* 0 1 0 0 1 0 0 1 0 0 1 0 0 0 0

Black-necked Swan *Cygnus melanocoryphus* 0 0 0 1 1 0 0 0 0 1 1 0 1 1 0

Lesser Snow Goose *Anser caeruleus* 2 2 0 2 2 0 2 2 0

Emperor Goose *Anser canadensis* 3 3 0 3 3 0

Ross's Snow Goose *Anser rossii* 1 1 0 1 1 0

Barnacle Goose *Branta leucopsis* 2 2 0 2 2 0 2 2 0 0 0 0 0 0 0

Red-breasted Goose *Branta ruficollis* 5 5 0 5 5 0

Hawaiian Goose *Branta sandvicensis* 3 3 0 0 0 10 0 0 4 0 0 1 0 0 5 3 3 0

Cereopsis Goose *Cereopsis novaehollandiae* 1 1 0 0 0 2 0 0 2 0 0 2 1 1 0

Ruddy-headed Goose *Chloephaga rubidiceps* 1 1 0 0 0 2 0 0 2 0 0 2 1 1 0

Common Shelduck *Tadorna tadorna* 2 2 0 0 0 6 0 0 1 0 0 5 2 2 0

Bahama Pintail *Anas bahamensis* 1 1 0 0 1 0 0 1 0 1 0 1 0 0 0

Chestnut Teal *Anas castanea* 1 1 0 1 1 0 1 1 0

Falcated Teal *Anas falcata* 3 2 0 0 0 1 0 0 1 1 0 0 2 2 0

Wigeon *Anas boschas* 1 1 0 1 1 0 1 1 0

Northern Shoveler *Anas platyrhynchos* 2 2 0 2 2 0 2 2 0

Red Shoveler *Anas platyrhynchos* 3 3 0 3 3 0 3 3 0

Laysan Teal *Anas platyrhynchos* 1 1 0 1 1 0 1 1 0 0 0 3 2 2 0

Chiloe Wigeon *Anas sibilatrix* 3 3 0 0 1 0 0 0 2 0 2 0 3 2 0

Ringed Teal *Anas leucostriata* 1 1 0 2 1 0 0 0 7 0 0 7 1 0 0 2 2 0

Marbled Teal *Anas maritima* 3 1 0 0 2 0 0 0 9 0 0 3 0 0 1 0 0 5 3 3 0

Tufted Duck *Ardeya fulicaria* 4 3 0 1 0 11 0 0 2 0 1 1 0 0 8 5 2 0

Rosy-billed Pochard *Netta peposaca* 2 2 0 2 2 0 2 2 0

Red-crested Pochard *Netta rufina* 2 2 0 0 0 10 0 0 2 0 0 4 0 0 4 2 2 0

Haned Goose *Chenonetta jubata* 3 3 0 3 3 0 3 3 0

Mandarin Duck *Aix galericulata* 15 9 0 1 0 0 4 0 49 0 0 27 0 1 8 1 0 14 19 8 0

Carolina Duck *Aix sponsa* 3 2 2 1 0 0 0 0 15 0 0 6 1 0 3 0 0 8 3 2 0

White-winged Wood Duck *Cairina scutulata* 1 1 0 2 1 0 0 0 4 0 0 2 1 0 1 0 0 1 2 2 0

Hooded Merganser *Mergus cucullatus* 4 2 0 0 2 0 0 2 0 4 4 0 4 4 0

Ruddy Duck *Oxyura jamaicensis* 4 1 0 0 1 0 0 0 13 0 0 8 0 0 5 4 2 0

FALCONIFORMES

Andean Condor *Vultur gryphus* 1 4 0 2 1 0 0 3 0 3 2 0

Bateleur Eagle *Terathopius ecaudatus* 1 1 0 1 1 0 1 1 0

Wedge-tailed Eagle *Aquila audax* 1 1 0 1 1 0 1 1 0

GALLIFORMES

Variable Chachalaca *Ortalis motacilla* 1 1 0 1 0 0 1 0 0 1 0 0 1 1 0

Sclater's Crested Curassow *Crax fasciolata sclateri* 2 2 0 1 0 0 1 0 0 1 2 0 1 2 0

California Quail *Lophortyx californicus* 1 0 0 0 2 0 0 2 0 1 0 0 1 0 0

Madagascar Partridge *Margaroperdix madagascariensis* 2 2 0 0 1 0 0 1 0 2 1 0 2 1 0

Rourolou Partridge *Hollulus rourolou* 2 2 0 2 2 0 2 2 0

Satyr Tragopan *Trogon satyra* 1 1 0 1 1 0 1 1 0

Himalayan Monal *Lophophanes inornatus* 1 1 0 0 1 0 0 1 0 1 1 0 1 1 0

Blue Eared-Pheasant *Crossoptilon auritum* 1 2 0 2 0 0 1 0 0 1 0 0 2 2 0

Brown Eared-Pheasant *Crossoptilon manchuricum* 1 1 0 0 1 0 0 1 0 0 1 0 1 0 0

White Eared-Pheasant *Crossoptilon crossoptilon* 1 1 1 0 1 0 0 0 1 0 0 1 0 0 1 1 1 0

Golden Pheasant *Chrysolophus pictus* 1 1 0 0 0 8 0 0 3 0 0 5 1 1 0

Grey Peacock-Pheasant *Polyplectron bicalcaratum* 1 1 1 0 0 4 0 0 4 0 0 4 1 1 1

Palawan Peacock Pheasant *Polyplectron embaeus* 4 1 0 0 1 0 0 0 2 0 0 1 2 0 0 2 2 1

Common Peafowl *Pavo cristatus* 4 5 0 0 0 13 0 0 7 0 0 1 4 5 5

Green Peafowl *Pavo muticus imperator* 1 1 0 1 1 0 1 1 0

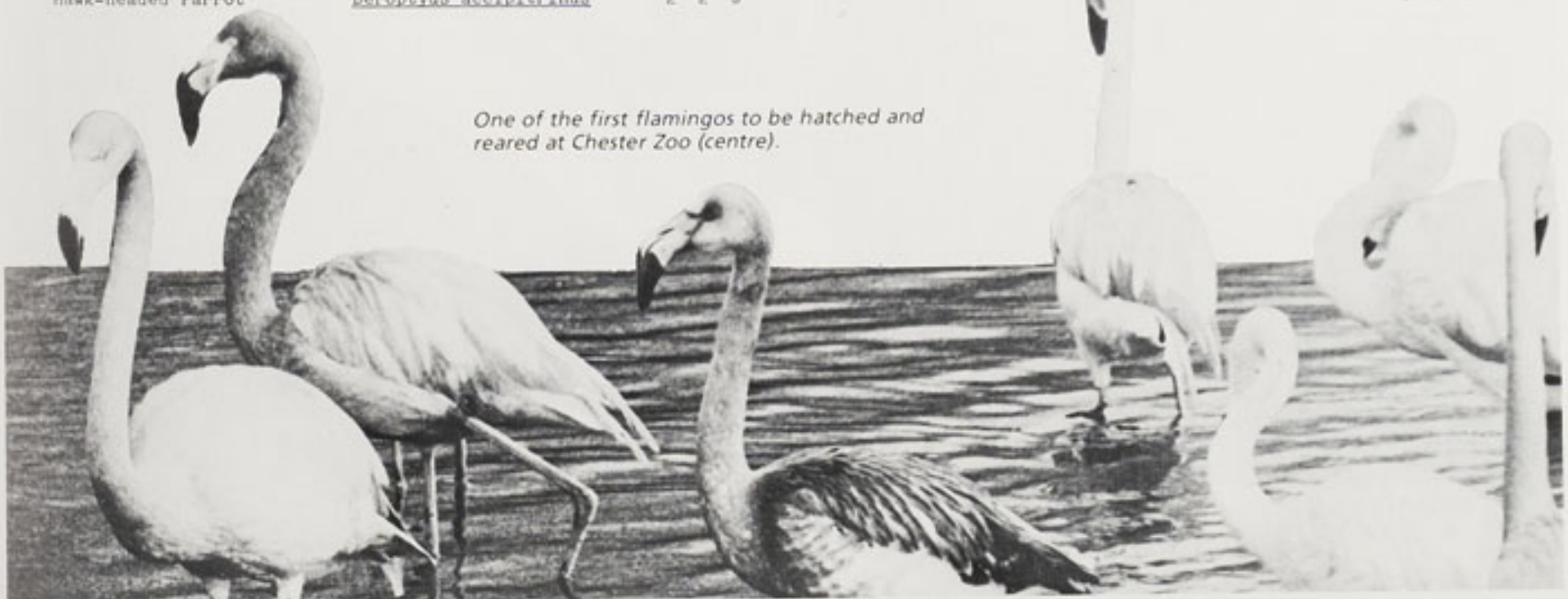
Congo Peafowl *Africapavo congensis* 0 0 0 1 1 0 1 1 0 1 1 0



BIRDS (CONTINUED)

		1 STOCK			2 RECEIVED			3 BORN/H'CH			4 D.N.S			5 DEATHS			6 DISPOSALS			7 STOCK		
		1/1/1987									30 DAYS			OTHER			31/12/1987					
		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	* <i>Grus japonensis</i>	2	0	0																2	0	0
White-naped Crane	<i>Grus vipio</i>	1	0	0										1	0	0				0	0	0
Sarus Crane	<i>Grus antigone</i>	1	1	1				0	0	3	0	0	2				0	0	1	1	1	1
Demoiselle Crane	<i>Anthropoides virgo</i>	1	1	0																1	1	0
West African Crowned Crane	* <i>Balearica pavonina</i>	1	1	0																1	1	0
Red and White Crake	<i>Laterallus leucopyrrhus</i>	0	0	2										0	0	2				0	0	0
Ypecaha Rail	<i>Aramides ypecaha</i>	1	1	0																1	1	0
Sun Bittern	<i>Eurypyga helias</i>	1	1	0																1	1	0
Little Black Bustard	* <i>Eupodotis afra</i>	1	1	0																1	1	0
CHARADRIIFORMES																						
Silver Gull	<i>Larus novaehollandiae</i>	1	1	0																1	1	0
Grey-headed Gull	<i>Larus cirrocephalus</i>	0	0	1																0	0	1
Southern Stone Curlew	* <i>Burhinus magnirostris</i>	2	2	0																2	2	0
Blacksmith's Plover	<i>Vanellus armatus</i>	3	4	3				0	0	14	0	0	11	0	0	2	1	0	4	2	4	0
Crowned Plover	<i>Vanellus coronatus</i>	5	3	1				0	0	13	0	0	7	0	0	2	2	0	5	3	3	0
COLUMBIFORMES																						
Fallas's Sandgrouse	<i>Syrhaptes paradoxus</i>	3	2	0													1	0	0	2	2	0
Speckled Pigeon	<i>Columba guinea</i>	0	0	6										0	0	2				0	0	4
Pink Pigeon	* <i>Nesoenas mayeri</i>	1	0	0	0	1	0													1	1	0
Laughing Dove	<i>Streptopelia senegalensis</i>	2	0	0																2	0	0
Bar-tailed Cuckoo Dove	<i>Macropygia unchall</i>	3	2	0										0	1	0				3	1	0
Emerald Dove	<i>Chalcophaps indica</i>	0	0	2																0	0	2
Crested Bronzewing Pigeon	<i>Ochophaps lophotes</i>	2	1	4										0	1	0				2	0	4
Diamond Dove	<i>Geopelia cuneata</i>	1	1	4				0	0	10				0	0	1	0	0	6	1	1	7
Mountain Witch Dove	<i>Geotrygon versicolor</i>	1	1	2				0	0	7	0	0	1	0	0	3				1	1	5
Golden Heart Pigeon	<i>Gallicolumba rufigula</i>	2	2	0										1	1	0				1	1	0
PSITTACIFORMES																						
Duyvenbode's Lory	<i>Chalcopsitta duivenbodei</i>	0	0	0	2	2	1							2	1	0				0	1	1
Red Lory	<i>Eos bornea</i>	1	1	0																1	1	0
Dusky Lory	<i>Pseudeos fuscata</i>	1	0	0													1	0	0	0	0	0
Swainson's Lorikeet	<i>Trichoglossus haematodus moluccanus</i>	1	2	4				0	0	2	0	0	2	1	2	2				0	0	2
Goldie's Lorikeet	<i>Trichoglossus goldiei</i>	1	1	1				0	0	2				1	1	0	0	0	1	0	0	2
Musk Lorikeet	* <i>Glossopsitta concinna</i>	1	2	0				0	0	3	0	0	3							1	2	0
Musschenbroek's Lorikeet	* <i>Neopsittacus muschenbroekii</i>	4	0	0	0	3	0										1	0	0	3	3	0
Palm Cockatoo	<i>Probosciger aterrimus</i>	2	1	0																2	1	0
Leadbeaters Cockatoo	<i>Cacatua leadbeateri</i>	1	1	0																1	1	0
Blue-eyed Cockatoo	<i>Cacatua ophthalmica</i>	6	5	0	1	0	0													7	5	0
Kea	* <i>Nestor notabilis</i>	2	2	0																2	2	0
Red-sided Eclectus Parrot	* <i>Eclectus roratus</i>	3	3	0										1	0	0				2	3	0
Crimson-winged Parrakeet	* <i>Aprornis erythropterus</i>	1	1	0	1	0	0							1	0	0				1	1	0
Barraband Parrakeet	<i>Polytelis swainsoni</i>	1	1	0	1	1	0	0	0	1	0	0	1							2	2	0
Vasa Parrot	<i>Coracopsis vasa</i>	1	1	0																1	1	0
Lesser Vasa Parrot	<i>Coracopsis nigra nigra</i>	4	3	0				0	0	3							1	0	0	3	3	3
Crimson Rosella	<i>Platycercus elegans</i>	1	1	0				0	0	3	0	0	3							1	1	0
Hooded Parrakeet	* <i>Psephotus chrysopterygius dissimilis</i>	2	1	0													1	0	0	1	1	0
Splendid Parrakeet	<i>Neophema splendida</i>	1	1	0	0	1	0							0	1	0				1	1	0
Derbyan Parrakeet	<i>Psittacula derbiana</i>	4	4	0				0	0	1							0	0	1	4	4	0
Red-fronted Macaw	* <i>Ara rubrogenys</i>	1	5	0																1	5	0
Yellow-naped Macaw	* <i>Ara auricollis</i>	1	0	0	0	1	0													1	1	0
Red-masked Conure	<i>Aratinga erythrogastra</i>	3	1	2				0	0	1				1	0	0				2	1	3
Queen of Bavaria Conure	<i>Aratinga guarouba</i>	1	1	0										0	1	0				1	0	0
Lesser Patagonian Conure	<i>Cyanoliseus patagonus</i>	0	0	18				0	0	5							0	0	2	0	0	21
Haroon-tailed Conure	<i>Pyrhura melanura</i>	1	1	0										1	0	0				0	1	0
Slender-billed Parrakeet	<i>Enicognathus leptorhynchus</i>	1	1	0				0	0	1	0	0	1							1	1	0
Yellow-faced Parrotlet	<i>Forpus xanthops</i>	4	7	1	0	1	0	0	0	4	0	0	4	2	4	0	0	1	1	2	3	0
Grey-cheeked Parrakeet	<i>Brotogeris pyrrhopterus</i>	1	4	0	0	1	0													1	5	0
Lilacine Amazon Parrot	* <i>Amazona autumnalis lilacina</i>	2	1	0																2	1	0
Hawk-headed Parrot	<i>Deropterus accipitrinus</i>	2	2	0																2	2	0

One of the first flamingos to be hatched and reared at Chester Zoo (centre).



BIRDS (CONTINUED)

1 STOCK 1/1/1987			2 RECEIVED			3 BORN/H'CH			4 D.N.S 30 DAYS			5 DEATHS OTHER			6 DISPOSALS			7 STOCK 31/12/1987		
M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?

CUCULIFORMES

Hartlaub's Turaco	<i>Tauraco hartlaubi</i>	0	2	0	3	2	0				1	0	0	0	2	0	2	2	0
Schalow's Turaco	<i>Tauraco schalowi</i>	1	2	0													1	2	0
White-cheeked Turaco	<i>Tauraco leucotis</i>	1	1	0	0	0	2										1	1	2

STRIGIFORMES

Barn Owl	* <i>Tyto alba</i>	2	2	0			0	0	20	0	0	2			0	0	18	2	2	0	
Great Eagle Owl	<i>Bubo bubo</i>	2	2	0			0	0	3						1	1	3	1	1	0	
Great Horned Owl	* <i>Bubo virginianus</i>	2	2	0			0	0	6	0	0	5			0	0	1	2	2	0	
Fishing Owl	<i>Scotopelia bouvieri</i>	0	1	0														0	1	0	
Spectacled Owl	* <i>Pulsatrix perspicillata</i>	3	1	1	0	1	0												3	2	1
Snowy Owl	* <i>Nyctea scandiaca</i>	2	2	0			0	0	4				1	0	0	0	0	4	1	2	0

CAPRIMULGIFORMES

Tawny Frogmouth	<i>Podargus strigoides</i>	2	0	0														2	0	0
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APODIIFORMES

Red-backed Mousebird	<i>Colius castaneus</i>	1	1	1			0	0	1	0	0	1						1	1	1
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CORACIIFORMES

Kookaburra	<i>Dacelo novaeguineae</i>	2	2	2			0	0	5						0	0	7	2	2	0	
Blue-crowned Motmot	<i>Momotus momota</i>	0	0	2														0	0	2	
Grey Hornbill	<i>Tockus nasutus</i>	1	2	0														1	2	0	
Red-billed Hornbill	<i>Tockus erythrorhynchus</i>	1	1	0									1	0	0				0	1	0
Trumpeter Hornbill	<i>Bucanastes buccinator</i>	1	1	0														1	1	0	
Great Indian Hornbill	* <i>Buceros bicornis</i>	0	1	0	1	0	0												1	1	0
Wrinkled Hornbill	* <i>Aceros corrugatus</i>	1	1	0														1	1	0	

PICIFORMES

Fire-tufted Barbet	<i>Psilopogon pyrolophus</i>	2	1	1									1	1	1				1	0	0
Great Barbet	<i>Megalaima virens</i>	0	2	0											0	2	0	0	0	0	
Crimson-rumped Toucanet	<i>Aulacorhynchus haematopygus</i>	2	1	0			0	0	3						1	0	3	1	1	0	
Channel-billed Toucan	* <i>Ramphastos vitellinus</i>	1	1	0									1	0	0				0	1	0
White Woodpecker	* <i>Leuconerpes candidus</i>	1	1	0			0	0	3						0	0	1	1	1	2	



A fledgling great horned owl stretches his wings on the arm of Mrs. Anne Morris who helped to rear him after he hatched in an incubator.

BIRDS (CONTINUED)

		1			2			3			4			5			6			7					
		STOCK			RECEIVED			BORN/H'CH			D.N.S			DEATHS			DISPOSALS			STOCK					
		1/1/1987									30 DAYS			OTHER						31/12/1987					
		M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?
PASSERIFORMES																									
Red-eared Bulbul	<i>Pycnonotus locosus</i>	0	0	5				0	0	8	0	0	8	0	0	3				0	0	2			
Chinese Bulbul	<i>Pycnonotus sinensis</i>	0	0	6										0	0	2				0	0	4			
Fairy Bluebird	<i>Irena puella</i>	2	1	0				0	1	3	0	0	2	0	0	1				2	2	0			
Cedar Waxwing	<i>Bombycilla cedrorum</i>	0	0	4										0	0	2				0	0	2			
Orange-headed Ground Thrush	<i>Zosterops citrina</i>	0	0	0	1	1	0													1	1	0			
Red-tailed Laughing Thrush	<i>Garrulax milpei</i>	0	0	0	0	0	4													0	0	4			
White-crested Laughing Thrush	<i>Garrulax leucolophus</i>	1	2	1				0	0	3	0	0	1	0	1	0				1	1	3			
Pekin Robin	<i>Leiothrix lutea</i>	0	0	5				0	0	5	0	0	4	0	0	2				0	0	4			
Silver-eared Mesia	<i>Leiothrix argenteauris</i>	1	1	0				0	0	6	0	0	6							1	1	0			
Blue-grey Tanager	<i>Thraupis episcopus</i>	1	1	0				0	0	4	0	0	1	0	0	1				1	1	2			
Black-capped White-eye	<i>Zosterops atricapilla</i>	0	0	1										0	0	1				0	0	0			
Red-cowled Cardinal	<i>Paroria dominicana</i>	1	1	2				0	0	12	0	0	7	0	0	3	0	0	4	1	1	0			
Wagler's Oropendola	<i>Psarocolius wagleri</i>	1	2	2										0	0	2				1	2	0			
Brown & Yellow Marshbird	<i>Pseudoleistes virescens</i>	1	0	0																1	0	0			
Giant Cowbird	<i>Scapidura oryzivora</i>	1	1	0										0	1	0				1	0	0			
Mexican House Finch	<i>Carpodacus mexicanus</i>	4	4	0				0	0	17	0	0	1	0	0	4	0	0	8	4	4	4			
Common Rosefinch	<i>Carpodacus erythrinus</i>	0	1	0																0	1	0			
Meiba Finch	<i>Pytilia meiba</i>	1	0	0										1	0	0				0	0	0			
Orange-cheeked Waxbill	<i>Estrilda melpoda</i>	0	0	3										0	0	1				0	0	2			
Red Avadavat	<i>Amandaya amandaya</i>	1	1	0																1	1	0			
Zebra Finch	<i>Poephila guttata</i>	0	0	15	0	0	11	0	0	9	0	0	5				0	0	11	0	0	19			
Spice Bird	<i>Lonchura punctulata</i>	0	0	4										0	0	2				0	0	2			
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				1	0	0										2	1	1			
Baya Weaver	<i>Ploceus philippinus</i>	2	1	0																2	1	0			
Red-billed Weaver	<i>Quelea quelea</i>	0	0	9																0	0	9			
Napoleon Weaver	<i>Euplectes afer</i>	2	1	0										1	0	0				1	1	0			
Long-tailed Glossy Starling	<i>Lamprotornis caudatus</i>	1	1	1				0	0	5	0	0	2	0	0	1				1	1	3			
Purple Glossy Starling	<i>Lamprotornis purpureus</i>	3	2	0				0	0	4	0	0	2	0	0	1				3	2	1			
Blue-eared Glossy Starling	<i>Lamprotornis chalybaeus</i>	1	0	0													1	0	0	0	0	0			
Amethyst Starling	<i>Cinnyricinclus leucogaster</i>	1	0	0																1	0	0			
Superb Starling	<i>Spreo superbus</i>	3	3	3	0	0	1	0	0	14	0	0	8	0	0	3	0	0	1	3	3	6			
Fischer's Starling	<i>Spreo fischeri</i>	0	0	0	0	0	1													0	0	1			
Royal Starling	<i>Cosmopsarus regius</i>	1	1	0	1	1	0							1	0	0				1	2	0			
Rothschild's Mynah	<i>Leucopsar rothschildi</i>	4	5	0				0	0	8	0	0	7	0	2	0				4	3	1			
White-vented Mynah	<i>Acridotheres javanicus</i>	0	0	1																0	0	1			
Hill Mynah	<i>Gracula religiosa</i>	1	0	2	0	1	1							0	1	0	1	0	0	0	0	3			
Coledo Mynah	<i>Sarcops calvus</i>	2	3	0				0	0	5	0	0	4	0	2	0				2	1	1			
Red-billed Blue Magpie	<i>Urocissa erythrorhynchos</i>	2	2	0										0	1	0				2	1	0			
San Blas Jay	<i>Cisilopha sanblasiana</i>	1	1	1				0	0	3	0	0	3				0	0	1	1	1	0			
Green Jay	<i>Cyanocorax yncas</i>	1	3	0													1	3	0	0	0	0			
Azure-winged Magpie	<i>Cyanopica cyana</i>	0	0	0	0	0	4													0	0	4			
Red-billed Chough	<i>Pyrrhocorax pyrrhocorax</i>	1	2	0																1	2	0			
		773			103			482			198			152			224			784					

Number of Specimens - 784
 Number of Species - 177



Rothschild's mynah, one of the rarest birds in the collection, is part of the species joint management breeding programme.



Waldrapp ibis, possibly not the most beautiful of birds, newly arrived from Rabat in Morocco, and joining birds from Jersey Zoo and Norfolk Wildlife Park.

The pixie frog comes from South Africa, where habitat loss threatens its survival. In severe dry conditions, the frog produces a membrane to cover and protect its skin. 'Pixie' derives from its latin name 'Pyxicephalus adspersus'.



REPTILES

		1			2			3			4			5			6			7			
		STOCK			RECEIVED			BORN/H*CH			D.N.S			DEATHS			DISPOSALS			STOCK			
		1/1/1987									30 DAYS			OTHER						31/12/1987			
		M	F	Y/T	M	F	Y/T	M	F	Y/T	M	F	Y/T	M	F	Y/T	M	F	Y/T	M	F	Y/T	
RHYNCHOCEPHALIA																							
Tuatara	<i>Sphenodon punctatus</i>	1	1	0																			
CHELONIA																							
Red Legged Tortoise	<i>Geochelone carbonaria</i>	0	0	0	0	0	5																
Greek Tortoise	<i>Testudo graeca</i>	5	15	3	10	8	0							7	2	0	0	5	0	0	16	3	
Herman's Tortoise	<i>Testudo hermanni</i>	5	11	4	4	3	0							1	5	1	4	3	0	4	6	3	
Aldabra Giant Tortoise	<i>Geochelone gigantea</i>	1	4	0																1	4	0	
Spurred Tortoise	<i>Geochelone sulcata</i>	0	0	1													0	0	1	0	0	0	
Matamora Turtle	<i>Chelus fimbriatus</i>	1	0	0																1	0	0	
Malayan Box Turtle	<i>Cuora amboinensis</i>	1	1	0	1	1	0													2	2	0	
Soft-shelled Turtle	<i>Trionyx triunguis</i>	1	0	0																1	0	0	
Geographic Terrapin	<i>Chrysemys sp.</i>	aq	0	0	2													0	0	2	0	0	0
SAURIA																							
Northern Green Gecko	<i>Naultinus elegans</i>	5	2	2										0	0	1				5	2	1	
Tokay Gecko	<i>Gekko gekko</i>	6	3	7				0	7	4				1	0	0				5	10	11	
Round Island Gecko	<i>Phelsuma guentheri</i>	0	2	0	0	3	0							0	2	0				0	3	0	
Leopard Gecko	<i>Eublepharis macularius</i>	4	23	1				0	3	59				1	8	0	0	0	57	3	18	3	
Moorish Gecko	<i>Tarentola mauritanica</i>	1	2	0										1	2	0				0	0	0	
Zonure	<i>Cordylus giganteus</i>	1	3	0										0	1	0				1	2	0	
Eyed Lizard	<i>Lacerta lepida</i>	2	3	17							0	0	3	0	1	1	0	0	8	2	2	5	
Jungle Runner	<i>Ameiva ameiva</i>	1	0	0	0	0	10							1	0	10				0	0	0	
African Agama	<i>Agama agama</i>	0	1	0										0	1	0				0	0	0	
Anolis Lizard	<i>Anolis equestris equestris</i>	1	0	0	2	2	0	0	0	1	0	0	1							3	2	0	
Common Iguana	<i>Iguana iguana</i>	1	1	2	3	4	0							3	2	0				1	3	2	
Rhinoceros Iguana	<i>Cyclura cornuta</i>	2	4	0																2	4	0	
Thailand Water Dragon	<i>Physignathus cocincinus</i>	1	3	0	1	0	3							0	1	0				2	2	3	
Eastern Water Dragon	<i>Physignathus lesuerli lesuerli</i>	0	1	0																0	1	0	
Sail-fin Lizard	<i>Hydrosaurus amboinensis</i>	0	0	4	1	2	0							0	0	1				1	2	3	
Crocodile Lizard	<i>Shinisaurus crocodilurus</i>	0	0	0	3	3	0	0	0	2	0	0	2	1	0	0				2	3	0	
Mountain Dragon	<i>Gonocephalus belli</i>	0	0	0	0	1	2													0	1	2	
Tree Dragon	<i>Acanthasaura crouwera</i>	0	0	0	6	11	0							2	2	0				4	9	0	
American Basilisk	<i>Basiliscus basiliscus</i>	2	5	0	1	1	0							1	0	0				2	6	0	
Plumed Basilisk	<i>Basiliscus plumifrons</i>	0	0	2	6	1	0							0	1	2				6	0	0	
Round Island Skink	<i>Leiolopisma telfairii</i>	1	0	0	0	0	6							1	0	5				0	0	1	
Shingleback Lizard	<i>Trachydosaurus rugosus</i>	0	0	1																0	0	1	
New Guinea Blue-tongued Skink	<i>Tiliqua pinnata</i>	1	0	0										1	0	0				0	0	0	
Prehensile-tailed Skink	<i>Corucia zebrata</i>	1	1	5				0	2	0				0	1	1				1	2	4	
Savannah Monitor	<i>Varanus exanthematicus</i>	0	0	2										0	0	1				0	0	1	
Salvator Monitor	<i>Varanus salvator</i>	0	0	2																0	0	2	
Glass Snake	<i>Ophisaurus apodus</i>	1	0	0										1	0	0				0	0	0	
Teguexin	<i>Tupinambis nigropunctatus</i>	1	1	1	0	0	1													1	1	2	
SERPENTES																							
Calabar Python	<i>Calabaria reinhardtii</i>	1	1	0																1	1	0	
Indian Python	<i>Python molurus bivittatus</i>	2	3	2	0	1	0	0	0	3				0	1	0	0	0	5	2	3	0	
Royal Python	<i>Python regius</i>	0	0	0	3	1	0													3	1	0	
Yellow Anaconda	<i>Eunectes notaeus</i>	1	1	0																1	1	0	
Boa Constrictor	<i>Constrictor constrictor</i>	3	5	0	1	0	0													4	5	0	
Cuban Boa	<i>Epicrates angulifer</i>	1	1	0																1	1	0	
Jamaican Boa	<i>Epicrates subflavus</i>	1	1	0	0	0	5							0	1	1				1	0	4	
Rainbow Boa	<i>Epicrates cenchris maura</i>	0	0	1																0	0	1	
Pacific Boa	<i>Candoia cincta</i>	0	1	0													0	1	0	0	0	0	
Madagascan Tree Boa	<i>Sanzinia madagascariensis</i>	1	1	0																1	1	0	
Speckled Kingsnake	<i>Lampropeltis getulus holbrooki</i>	1	1	0										1	0	0				0	1	0	
Honduran Milk Snake	<i>Lampropeltis triangulum hondurensis</i>	1	1	0																1	1	0	
Texas Indigo Snake	<i>Dryasarchon corais erebennus</i>	1	2	0										0	1	0				1	1	0	
Black Rat Snake	<i>Elaphe obsoleta obsoleta</i>	1	1	0																1	1	0	
Corn Snake	<i>Elaphe guttata guttata</i>	0	2	0	1	2	0	0	0	8	0	0	1	1	3	1	0	0	4	0	1	2	
Great Plains Ratsnake	<i>Elaphe g. emoryi</i>	1	1	0										1	0	0				0	1	0	
Red-tail Racer	<i>Gonyosoma oxycephala</i>	1	2	0	0	1	2							0	1	0				1	2	2	
Vine Snake	<i>Oxybelis fulgidus</i>	0	0	0	2	4	0							1	2	0				1	2	0	
Brown Tree Snake	<i>Boiga irregularis</i>	3	0	0																3	0	0	

REPTILES (CONTINUED)

	1 STOCK 1/1/1987			2 RECEIVED			3 BORN/H'CH			4 D.N.S 30 DAYS			5 DEATHS OTHER			6 DISPOSALS			7 STOCK 31/12/1987		
	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?
Indian Cobra																					
False Water Cobra																					
Green Mamba																					
Gaboon Viper																					
Nose Horned Viper																					
Bamboo Pit Viper																					
Western Diamond-backed Rattlesnake																					
Foggy Rattlesnake																					

CROCODYLIA

	1 STOCK 1/1/1987			2 RECEIVED			3 BORN/H'CH			4 D.N.S 30 DAYS			5 DEATHS OTHER			6 DISPOSALS			7 STOCK 31/12/1987		
	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?
Mississippi Alligator																					
Broad-fronted Crocodile																					
Johnston's Crocodile																					

Number of Specimens - 302

Numbers of Species - 58

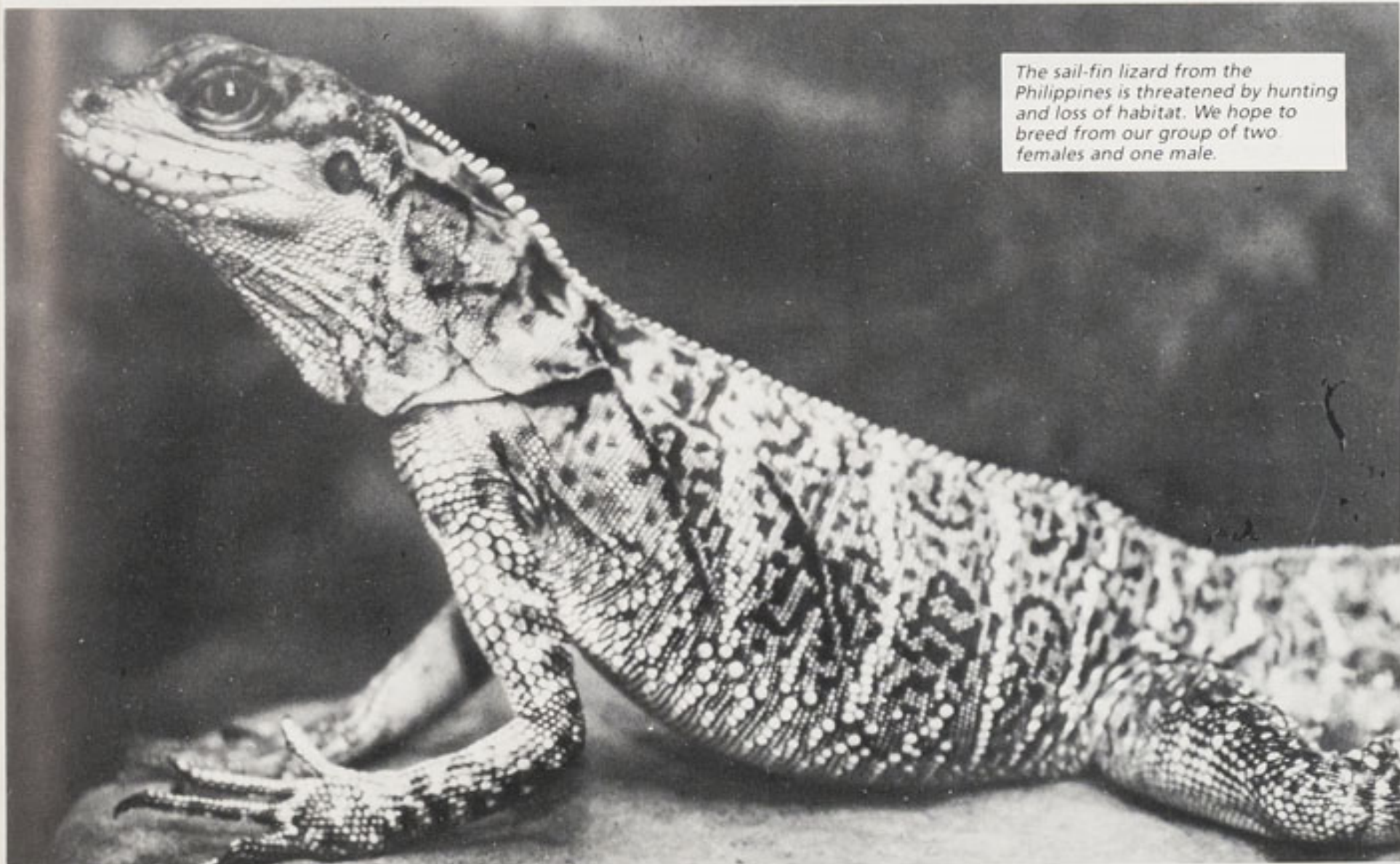
AMPHIBIA

	1 STOCK 1/1/1987			2 RECEIVED			3 BORN/H'CH			4 D.N.S 30 DAYS			5 DEATHS OTHER			6 DISPOSALS			7 STOCK 31/12/1987		
	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?	M	F	Y/?
Axolotl (black form)																					
do (white form)																					
Spotted Salamander																					
Japanese Fire-bellied Newt																					
American Tree Frog																					
Red Eyed Tree Frog																					
Tree Toad																					
Australian Tree Frog																					
Argentine Horned Frog																					
Pixie Frog																					
Fire-belly Toad																					
South African Clawed Frog (albino form)																					
Nigerian Clawed Frog																					
Surinam Toad																					
Asian Striped Frog																					
Leopard Frog																					

Number of Specimens - 287

Number of Species - 10

aq indicates species kept by the Aquarium.



The sail-fin lizard from the Philippines is threatened by hunting and loss of habitat. We hope to breed from our group of two females and one male.

FISH

STOCK AS AT 31ST DECEMBER 1987

ACIPENSERIDAE

Sterlet	<u>Acipenser ruthenus</u>	3
Mississippi Paddlefish	<u>Polyodon spathula</u>	2

OSTEOGLOSSIDAE

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

GYMNOTIDAE

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

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

MORMYRIDAE

Long-nosed Elephant Trunk Fish	<u>Gnathomemus petersi</u>	4
Elephant Trunkfish	<u>Gnathomemus idus</u>	2
Short-nosed Elephant Trunk Fish	<u>Marcusenrus angolensis</u>	3
Round-nosed Elephant Trunk Fish	<u>Pollinyrus castelnaui</u>	4

POLYPTERIDAE

Birchira	<u>Polypterus senegalis</u>	5
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CHARACIDAE

Bloodfin Tetra	<u>Aphyocharax anisiti</u>	18
Red-eyed Characin	<u>Arnoldichthys spilopterus</u>	15
Blind Cave Fish	<u>Astynax jordani</u>	24
Long-finned Characin	<u>Brycinus longipinnis</u>	12
Whimble Piranha	<u>Catoprion mento</u>	1
Cardinal Tetra	<u>Cheirodon axelrodi</u>	44
Black Widow Tetra	<u>Gymnocorymbus ternetzi</u>	20
Silver Tipped Tetra	<u>Hasemanis nana</u>	4
Glowlight Tetra	<u>Hemigrammus erythrozonus</u>	30
Rummy-nosed Tetra	<u>Hemigrammus rhodostomus</u>	26
Flame Tetra	<u>Hypessobrycon flammeus</u>	8
Black Neon Tetra	<u>Hypessobrycon herbertaxelrodi</u>	13
Lemon Tetra	<u>Hypessobrycon pulchripinnis</u>	16
Bleeding Heart Tetra	<u>Hypessobrycon rubrostigma</u>	13
Black Phantom Tetra	<u>Megalampodus megalopterus</u>	13
Emperor Tetra	<u>Nematobrycon palmeri</u>	10
Neon Tetra	<u>Paracheirodon innesi</u>	3
Congo Tetra	<u>Phenacogrammus interruptus</u>	** 50
X-Ray Tetra	<u>Pristella maxillaris</u>	12
	<u>Pyrchulina stoli</u>	1
	<u>Serrasalms gibbus</u>	2

ANOSTOMIDAE

Marbled Headstander	<u>Abramites microcephalus</u>	3
Striped Anostomus	<u>Anostomus anostomus</u>	14

GYRINOCHEILIDAE

Sucking Loach	<u>Gyrinocheilus aymerieri</u>	50
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HEMIODONTIDAE

Golden Pencil Fish	<u>Nannostomus anomalus</u>	1
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CASTERAPELECIDAE

Marbled Hatchetfish	<u>Carnegiella strigata</u>	14
Silver Hatchetfish	<u>Gasteropelecus sternicla</u>	2
Silver Hatchetfish	<u>Thoracocharax stellatus</u>	12

CYPRINIDAE

Bream	<u>Abramis brama</u>	2
Silver Shark	<u>Balantiocheilus melanopterus</u>	3
Black Shark	<u>Morulus chrysophekadion</u>	1
Cumings Barb	<u>Barbus cumingi</u>	36
Zebra Danio	<u>Brachydanio rerio</u>	5
Cherry Barb	<u>Capoeta titteya</u>	30
Goldfish (various)	<u>Carassius auratus</u>	6
Grass Carp	<u>Ctenopharyngodon idella</u>	4
Mirror Carp	<u>Cyprinus carpio</u>	14
Hi-go! Carp	" "	2
Koi Carp	" "	36
Golden Orfe	<u>Idus idus</u>	7
Red-tailed Black Shark	<u>Labeo bicolor</u>	2
Red Horse Minnow	<u>Notropis lutrensis</u>	8
Rosy Barb	<u>Puntius conchoniis</u>	16
Odessa Barb	<u>Puntius sp.</u>	10
Black Ruby Barb	<u>Puntius nigrofasciatus</u>	30
Golden Barb	<u>Puntius sahsai</u>	** 40
Stoliczka's Barb	<u>Puntius stoliczkaei</u>	17
Red-tailed Rasbora	<u>Rasbora borapetensis</u>	2
Red-tailed Scissor Tail	<u>Rasbora caudimaculata</u>	24

Brilliant Rasbora	<u>Rasbora einthoveni</u>	3
Harlequin Rasbora	<u>Rasbora heteromorpha</u>	3
Big Spot Rasbora	<u>Rasbora kalochroma</u>	4
Elegant Rasbora	<u>Rasbora lateristriata elegans</u>	12
Glowlight Rasbora	<u>Rasbora pauciperforata</u>	5
Rasbora	<u>Rasbora sp.</u>	1
Golden Rudd	<u>Scardinius erythrophthalmus</u>	** 300
Tench	<u>Tinca tinca</u>	1

COBITIDAE

Clown Loach	<u>Botia macracantha</u>	1
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CENTROPOMIDAE

Indian Glassfish	<u>Chandra ranga</u>	6
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CICHLIDAE

Keyhole Cichlid	<u>Aequidens maroni</u>	2
Blue Acara	<u>Aequidens pulcher</u>	2
Oscar or Marbled Cichlid	<u>Astronotus ocellatus</u>	3
Red Devil Cichlid	<u>Cichlasoma citrinellum</u>	26
	<u>Cichlasoma managuense</u>	1
	<u>Cichlasoma motaguense</u>	3
	<u>Cichlasoma nigrofasciatum</u>	8
	<u>Cichlasoma octofasciatum</u>	6
	<u>Cichlasoma synspilum</u>	** 19
	<u>Cyphotilapia frontosa</u>	1
Paraguay Mouthbrooder	<u>Geophagus balzanii</u>	1
Red Hump Geophagus	<u>Geophagus hondae</u>	3
Jurupari	<u>Geophagus jurupari</u>	2
Surinam Geophagus	<u>Geophagus surinamensis</u>	** 12
Burton's Mouthbrooder	<u>Haplochromis burtoni</u>	** 14
Jewel Cichlid	<u>Hemichromis bimaculatus</u>	** 5
Elongate Hemichromis	<u>Hemichromis elongatus</u>	** 20
Banded Cichlid	<u>Heros severus</u>	3
" " (Golden Form)	" "	1
Rainbow Cichlid	<u>Herotilapia multispinosa</u>	1
Rainbow Cichlid	<u>Pelvicachromis pulcher</u>	1
Livingstone's Mbuna	<u>Pseudotropheus livingstoni</u>	** 40
Angel Fish	<u>Pterophyllum altum</u>	1
Angel Fish	<u>Pterophyllum scalare</u>	** 30
Brown Discus	<u>Symphysodon a axelrodi</u>	2
Heckel Discus	<u>Symphysodon discus</u>	5
Fire-mouth Cichlid	<u>Thorichthys meeki</u>	2
Uaru	<u>Uaru amphiacanthoides</u>	1

ANABANTIDAE

Climbing Perch	<u>Anabas testudineus</u>	1
Comb-tailed Paradise Fish	<u>Belontia signata</u>	14
Leopard Climbing Perch	<u>Ctenopoma acutirostre</u>	4
Ornate Ctenopoma	<u>Ctenopoma anorgei</u>	4
Chocolate Gourami	<u>Sphaerichthys osphromenoides</u>	13
Pearl Gourami	<u>Trichogaster leeri</u>	14
Moonlight Gourami	<u>Trichogaster microlepis</u>	8
Three-spot Gourami	<u>Trichogaster trichopterus</u>	2
Opaline Gourami	<u>Trichogaster trichopterus var.</u>	5
Sparkling Gourami	<u>Trichopsis pumilus</u>	** 20

ATHERINIDAE

Boeseman's Rainbow Fish	<u>Melanotaenia boesemani</u>	**200
Australian Rainbow Fish	<u>Melanotaenia maccullochi</u>	** 40
Celebes Rainbow Fish	<u>Telmatherina ladigesii</u>	** 13

BAGRIDAE

Two-spot Catfish	<u>Mystus micracanthus</u>	1
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MOCHOKIDAE

Polka-dot Upside-down Catfish	<u>Synodontia angelicus</u>	4
Decorated Upside-down Catfish	<u>Synodontia decorus</u>	4
Upside-down Catfish	<u>Synodontia nigriiventis</u>	10
Upside-down Catfish	<u>Synodontia sp.</u>	8

PIMELODIDAE

Catfish	<u>Pimelodus pictus</u>	11
Shovel-nosed Catfish	<u>Sorubim lima</u>	3

MALAPTERURIDAE

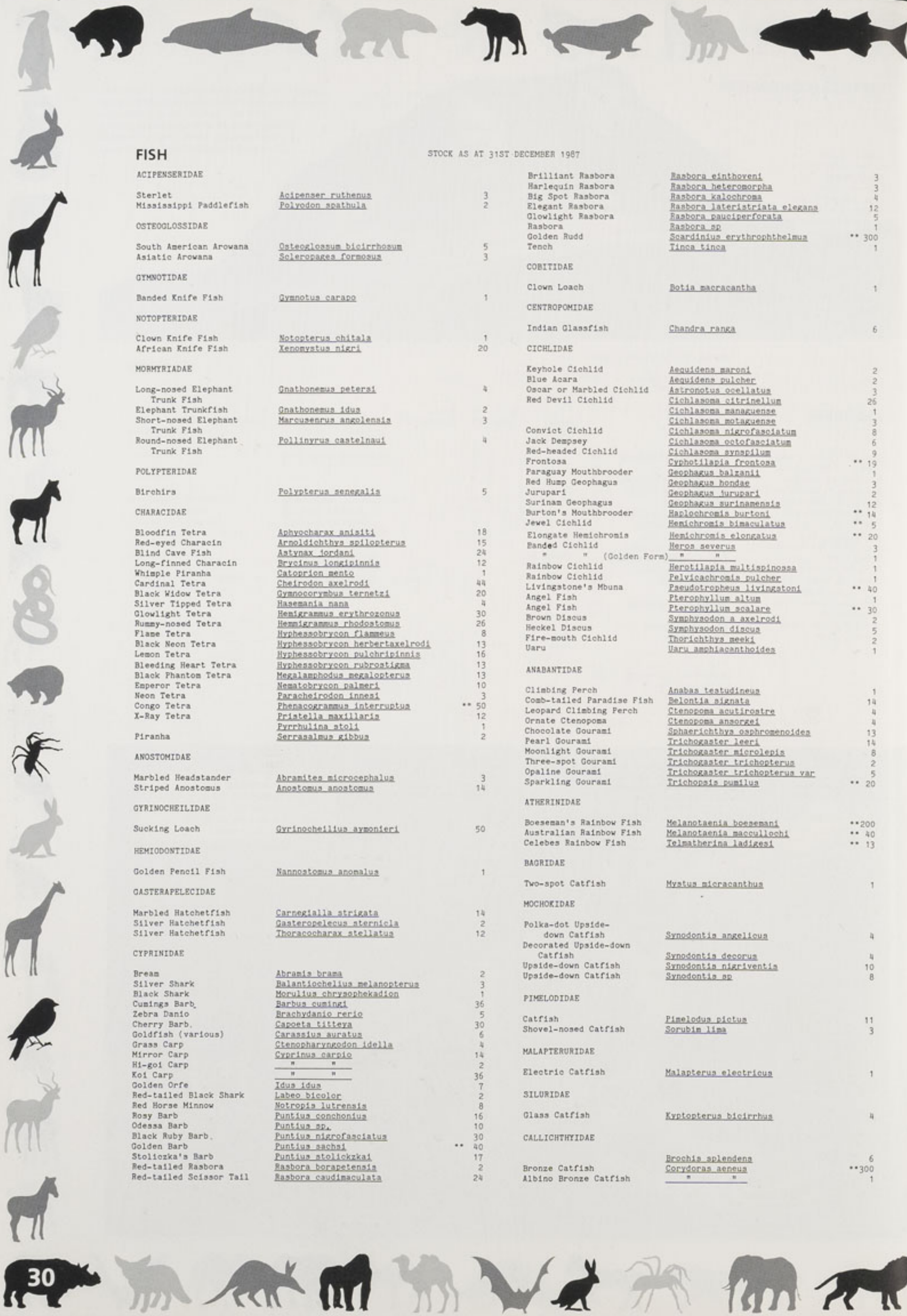
Electric Catfish	<u>Malapterua electricus</u>	1
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SILURIDAE

Glass Catfish	<u>Kryptopterus bicirrhus</u>	4
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CALLICHTHYIDAE

Bronze Catfish	<u>Brochia splendens</u>	6
Albino Bronze Catfish	<u>Corydoras aeneus</u>	**300
	" "	1





FISH (CONTINUED)

STOCK AS AT 31ST DECEMBER 1987

Arched Corydoras	<u>Corydoras arcuatus</u>	10
	<u>Corydoras bondi</u>	3
	<u>Corydoras habroaus</u>	** 30
	<u>Corydoras metae</u>	1
Peppered Catfish	<u>Corydoras paleatus</u>	** 14
Porthole Catfish	<u>Dianema longibarba</u>	1
LORICARIIDAE		
Flecostomus Catfish	<u>Hypostomus plecostomus</u>	24
Royal Plecostomus	<u>Panaque nigrolinatus</u>	1
Clown Plecostomus	<u>Peckoltia sp.</u>	** 30
Bristle-nosed Plecostomus	<u>Xenocara sp.</u>	5
Whiptailed Catfish	<u>Sturisoma aureum</u>	5
CYPRINODONTIDAE		
Guppy	<u>Poecilia reticulata</u>	** 100
Tuxedo Swordtail	<u>Xiphophorus helleri</u>	** 40
Green Swordtail	<u>Xiphophorus helleri</u>	** 200
Red Wagtail Platy	<u>Xiphophorus maculatus</u>	** 300
GOODEIDAE		
Butterfly Goodied	<u>Ameiops splendens</u>	** 100
DORADIDAE		
Spotted Talking Catfish	<u>Agamyxis pectinifrons</u>	2
Driftwood Catfish	<u>Auchenipterichthys thoracatus</u>	20
Striped Talking Catfish	<u>Platydoras costatus</u>	2
MONODACTYLIDAE		
Finger Fish	<u>Monodactylus argenteus</u>	2
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>	1
Halfbeak	<u>Dermogenys sumatrana</u>	** 20
Celebes Halfbeak	<u>Nomorhamphus celebensis</u>	9
MURAENIDAE		
Snowflake Moray Eel	<u>Echidna nebulosa</u>	1
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 polymus</u>	1
Black-tailed Numbbug Damsel Fish	<u>Dasycellus melanurus</u>	1
Beau Gregory Damsel Fish	<u>Eupomacentrus leucostictus</u>	6
DIODONTIDAE		
Spiny Puffer Fish	<u>Chilomycterus antennatus</u>	1
ACANTHURIDAE		
Regal Tang	<u>Paracanthurus hepatus</u>	3
Yellow Tang	<u>Zebraea flavescens</u>	4
Sailfin Tang	<u>Zebraea veliferum</u>	1
	bbil	
CIRRHITIDAE		
Long Nosed Hawkfish	<u>Oxycirrhites typus</u>	2
SERRANIDAE		
Blue-jewelled Grouper	<u>Cephalopholis argus</u>	1
Panther Grouper	<u>Chromileptes altivelis</u>	1
POMACANTHIDAE		
African Flame-backed Angel Fish	<u>Centropyge acanthops</u>	1
SYNGNATHIDAE		
Dwarf Seahorse	<u>Hippocampus zosterae</u>	** 40
SCORPAENIDAE		
Scorpion Fish	<u>Pterias voltana</u>	3

Number of Species = 163 Number of Specimen = c 3032

** Indicates species bred in the Society's collection in 1987

INVERTEBRATES

COELENTERATES

Beadlet Anemone	<u>Actina equina</u>	** aq	60
Dahlia Anemone	<u>Tealia felina</u>	aq	3
Sea Anemone	<u>Stoichactis sp.</u>	aq	1
Plumose Anemone	<u>Metridium senile</u>	aq	8
Sea Anemone	<u>Radianthus malu</u>	aq	1

CRUSTACEANS

Banded Coral Shrimp	<u>Stenopus hispidus</u>	aq	1
Blood Shrimp	<u>Lyssata sp.</u>	aq	1
Mosaic Shrimp	<u>Saron sp.</u>	aq	2
Land Hermit Crab	<u>Conenobita sp.</u>	aq	1
Shore Crab	<u>Carcinus maenas</u>	aq	6
Togo Land Crab	<u>Cardisoma guanhumi</u>		2

INSECTS

African Field Cricket	<u>Gryllus bimaculatus</u>	**	50
Migratory Locust	<u>Locusta migratoria</u>	**	25
Indian Stick Insect	<u>Baculum sp.</u>	**	75
Spiny Stick Insect	<u>Eurycantha calcarata</u>	**	6
Macleays Spectre	<u>Extatosoma tiaratum</u>	**	35
Praying Mantis	<u>Sphodromantia centralia</u>	**	2
Hissing Cockroach	<u>Gromphadorhina portentosa</u>	**	4
Fruit Beetle	<u>Fachnoda marginata</u>	**	16

ARACHNIDS

Esperor (Imperial) Scorpion	<u>Pandinus imperator</u>		1
Bird Eating Spider	<u>Acanthoecurria sp.</u>		1
Mexican Red-rumped Tarantula	<u>Brachypelma vagans</u>		4
Mexican Red-kneed Tarantula	<u>Brachypelma smithi</u>		5
Curly Haired Tarantula	<u>Brachypelma albopilosa</u>	**	1
Thailand Black Tarantula	<u>Meopacus albostrigatus</u>	**	15
Haitian Brown Spider	<u>Phormiotopus cancerides</u>	**	5
Trinidad Tree Spider	<u>Tapenauchenius plumipes</u>		3
Costa Rican Zebra Spider	<u>Aphonopelma seemanni</u>		2

MOLLUSCS

African Land-Snail	<u>Achatina fulica</u>	**	16
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ECHINODERMS

Common Star Fish	<u>Asterias rubens</u>	aq	6
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358

** indicates species bred in the Society's collection in 1987
aq indicates species kept by the Aquarium

Number of Specimens - 358

Number of Species - 30



Finger fish





Adoption and Sponsorship

We had hoped to list all our adopters by name, as we did last year, but with 466 new adopters in 1987, we would have needed an extra two and a half pages of text, so we ask you to accept our heartfelt thanks to each and every one of our 1,300 adopters. Every animal adopter, new or old, helps to cover the increasing cost of food for our animals. Quite frankly, we can keep more animals in more conservation-needy species because of the help we are getting in this way.

Our Adoptions and Membership Secretary, Mrs. Maureen Allsopp, will send full details of our schemes—which enable anybody interested in conservation to participate in the work of the Society. Each adopter receives a handsome certificate, car stickers, acknowledgement within the zoo itself, our quarterly magazine* and admission privileges. The Adoption scheme runs in 'shares' of £25.00 each, with each species having a different value, so if you feel you cannot afford to adopt a whole elephant, you can adopt one or more of the 80 shares that make up an elephant adoption, and you can do so as an individual or as a member of a group.

In *balancing* our thanks we want to record our gratitude to our commercial sponsors—individually generous—and numerically still able to be listed:

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To Sponsors and Adopters alike, thank you very much indeed.

(*adoptions £25.00 and over)

The 1987 Annual Report was designed and devised by the Zoo's Marketing Department; with typesetting, and printing by Leemancolour Ltd. of Neston, South Wirral. Photographs by zoo staff unless otherwise acknowledged. For further information on any aspect of the North of England Zoological Society, please write to The Director, Chester Zoo, Upton-by-Chester, CH2 1LH.

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