

The Zoological Society of London

Trustees' Report and Financial Statements

31 December 2008

Registered Charity No. 208728

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Trustees' Report

The Trustees are pleased to submit this report and the financial statements for the year to 31 December 2008. Further information about the Society's activities is given in a separate document, Zoological Society of London Annual Review ("Annual Review") which can be obtained from the Finance Director or online from www.zsl.org.

Objectives of the Society and Mission Statement

The objectives of the Society as set out in its Charter are: 'the advancement of zoology by, amongst other things, the conducting of scientific research, the promoting of conservation of biological diversity and the welfare of animals, the care for and breeding of endangered and other species, the fostering of public interest, the improvement and dissemination of zoological knowledge and participation in conservation worldwide.'

In addition the Society has adopted a Mission Statement, which reads:

"To promote and achieve the worldwide conservation of animals and their habitats"

Public Benefit

There are a number of ways in which the public benefit is pursued:

- We run two outstanding collections which are open to the general public on 364 days of the year. The exhibits are designed to enable the public to experience the diversity and wonder of the animal kingdom by seeing a wide variety of species close up. New developments are removing the 'bars' element of the traditional zoo and imaginative interpretation enables visitors to learn about animals and the threats to biodiversity. The number of people taking part in this experience is growing each year.
- We offer a wide range of organised educational activities, primarily through the schools visits programme which involved almost 167,000 Students in 2008. These were either funded by the GLA or organised at a heavily discounted rate by ZSL. Other activities included adult classes, work experience and the support of post-graduate training.
- We disseminate knowledge through our international publications.
- We fund and run a world-renowned library, with open access.
- We work with communities across the world on their conservation programmes.

Strategic Aims

The Zoological Society of London (ZSL) pursues its mission with four key Strategic Aims:

1. ***We will undertake and promote relevant high quality zoological and conservation research, to help us achieve our conservation objectives and to inform and influence conservation policy***

ZSL will achieve this strategic aim by:

- Encouraging and rewarding excellence in the performance and communication of science, conservation and animal husbandry
- Attracting and engaging a diverse range of people and organisations in the science of zoology and conservation - from students to leaders in their field
- Using our unique convening role as a leading learned society to foster and achieve international excellence in science relevant to our core conservation priorities
- Managing and developing a relevant and useful body of zoological knowledge
- Providing policy makers, conservationists and the general public with the information needed to make informed decisions on conservation issues.
- Raising the profile of conservation issues and priorities, and ensuring they are well represented at policy level and in the media.

2. To encourage and motivate all our stakeholders to support and engage in conservation

ZSL will achieve this strategic aim by:

- Enabling and inspiring all ZSL's staff, students and volunteers to become ambassadors for our conservation mission
- Running world-class zoos with the highest standards of animal welfare, husbandry and exhibit design
- Ensuring that all visitors have an enjoyable, inspiring and educational experience
- Communicating science-based conservation messages
- Improving and developing our contributions to the education and conservation awareness of groups of all ages and to education providers
- Raising and maintaining our profile among target audiences
- Using our research and field activities to inspire and educate people about conservation
- Enhancing the value delivered to ZSL members

3. To implement and achieve effective and appropriate "in situ" and "ex situ" conservation programmes for priority species and habitats

ZSL will achieve this strategic aim by:

- Ensuring that conservation efforts are informed by the best science.
- Applying objective criteria for setting priorities for our conservation activity and measuring against successful outcomes.
- Measuring conservation efforts and evaluating their outcomes to enable more effective management.
- Developing our own and others' capabilities, expertise and resources in order to build capacity in zoology and conservation
- Predicting, prioritising and responding effectively to new conservation issues
- Working with other organisations and across disciplines to achieve our common conservation objectives
- Engaging and working with communities in support of conservation and sustainable livelihoods.
- Working with Government and industry in support of conservation.

4. To further ZSL's mission, by maximising opportunities to generate funds

ZSL will achieve this strategic aim by:

- Developing our business acumen
- Making continued investment in our sites and infrastructure
- Developing innovative opportunities to generate revenue
- Building up and extending our supporter base
- Raising our profile to increase funding to ZSL
- Utilising ZSL assets and resources to generate funds within the framework of a registered charity
- Making efficient use of ZSL resources

Guiding Principles

In carrying out its mission ZSL will adopt five guiding principles:

1. *Respecting and valuing animals and the natural world*

Our belief is that a diverse and healthy natural world is valuable in its own right and is essential for ensuring secure and healthy lives for people. This motivates ZSL's vision and mission, and our other core values follow from this.

2. *Inspiring conservation action*

We seek to motivate others to take conservation action in their daily lives.

3. *To achieve excellence in our field*

Building on our heritage and reputation as a learned society, we aim to be an authoritative source of information and good practice for the scientific study, conservation and husbandry of animals; and to make efficient and effective use of available resources to achieve the highest possible standards in everything we do in the operation of a successful and innovative conservation organisation.

4. *Acting ethically, responsibly and sustainably*

We aim to operate in fair and justifiable ways that do not conflict with our mission/ objectives, and which respect the environment.

5. *Valuing everyone we work with*

We support and value teamwork and collaboration, strive for fair and equitable treatment of everyone with whom we work and come into contact, and aim to act with respect and courtesy in all our dealings.

Plans for Future Periods

1. By raising our charity profile and improving our customer service we will maximise our opportunities to generate funds while further striving to improve our cost efficiency.
2. The new corporate communication strategy will renew emphasis on amphibian decline, the state of our oceans and Thames Estuary conservation.
3. We will continue our commitment to field conservation initiatives with specific focus on the South Asian Vulture Recovery Programme, gorillas in Central Africa and EDGE top 100 priority species.
4. Priorities for action in the Zoos will be the launch of Animal Adventure and Galapagos tortoise exhibits at ZSL London Zoo and the improved Brown bear enclosure at ZSL Whipsnade Zoo.
5. The Zoos' masterplans will be launched during 2009.
6. Engaging tomorrow's decision makers will be a major focus for 2009, building on Animal Adventure and the launch of a new children's interactive zone on the website.
7. Improving the visitor experience through better customer care and a new customer relationship database.
8. Working with the Darwin centenary celebration we will enhance our onsite communication of science, in addition to a special programme of scientific meetings, symposia and awards.
9. Scientific priorities for next year will continue to include wildlife health and disease and behavioural and population ecology, and The Bushmeat Research Programme.
10. These achievements will only be possible with the continued hard work and dedication of staff and volunteers. To support this next year we will be continuing training and offering a professional qualification programme.

Corporate Status

The Society is a charity, registered in England & Wales with the Charity Commission (no 208728). Certain of the commercial operations of the two zoos, namely catering and shops, are carried out through its wholly owned subsidiary companies Zoo Operations Limited, Zoo Enterprises Limited and Whippsnade Wild Animal Park Limited. In addition the Society controls other wholly owned subsidiaries; Zoo Restaurants Limited, ZSL (Web of Life) Limited, which are dormant; Biota and the Zoological Society of London Development Trust.

Organisation

Council

The Society is established under a Royal Charter, the current version of which dates from 1995, and is governed by Byelaws and Regulations. The Byelaws set out requirements concerning membership, the officers (President, Secretary, and Treasurer), the election and proceedings of Council, and general and other meetings.

The Council is the ruling body of the Society, meets 5 to 6 times each year, and is responsible for establishing and monitoring the policies of the Society. Council members are elected from and by the membership of the Society by postal ballot and serve for periods of three years. All members are circulated with invitations to nominate Trustees, and advised of the retiring Trustees and specialist skills that the Council consider would be helpful to the Society.

New Trustees are invited to an induction/training meeting prior to taking up their role where, in accordance with Charity Commission guidelines, they are briefed on their legal obligations under charity and, where relevant, company law, the charter and byelaws of the Society, the committee and decision making process, directors' reports and the financial performance of the Society. Additional training, if required, can be provided internally or externally.

Committees

In addition to Council, the Society operates through a number of committees and boards whose terms of reference and membership is shown below:

- **Finance and General Purposes Committee**

Terms of Reference – To monitor the financial management of the Society and act as an audit committee, and to preview and prepare papers for Council requiring policy or capital investment decisions.

Membership – Paul Rutteman (Chair), Professor Paul Harvey, Professor Sir Patrick Bateson, Dr Jonathan Boyce, Martin Cooke*, Martin Rowson, Ken Sims, Richard Melville Ballerand*, Professor Roger Wotton+, Mark Ridgeway+.

- **Animal Welfare Committee**

Terms of Reference – To advise Council on matters relating to Animal Welfare in the collections, both at London and Whippsnade Zoos, at the Institute of Zoology and in the work of Conservation programs.

Membership – Professor James Kirkwood (Chair to Nov 08), Anna Meredith (plus Chair from Nov 08), Dr Brian Bertram, Roger Ewbank, Natasha Fuchs, Dr Andrew Higgins, Dr Charlotte Nevison, David Pritchard, Robert Wingate.

- **Awards Committee**

Terms of Reference – Council presents a number of awards for contributions to Zoology and Conservation. The committee advises Council on all matters relating to these awards and the appointment of Honorary Fellows.

Membership – Professor Georgina Mace (Chair to June 08), Professor Paul Harvey, Professor Tim R Birkhead (Chair from June 08), Professor Tim Blackburn, Professor Ian Boyd, Professor Mike Bruford, Dr Tracey Chapman, Steve Flowerday (to December 08), Professor Nigel Franks, Professor Jenny Clack*,

Professor Pat Monahan, Professor Jeremy Thomas, Professor Stuart West, Dr Jonathan Baillie+, Alastair Land (from December 2008), Professor Matt Keeling,+.

- **University of Cambridge/Zoological Society of London Joint Committee**

Terms of Reference – To determine, in the light of the policies and plans of the Society and where appropriate those of the University, the academic policy and development of the Institute and to advise the Director of Science of the Society thereon.

To co-ordinate and monitor the implementation of the Institute's policies and plans, including planned staffing levels, student numbers and its financial management, and to submit an annual report thereon to the Council of the Society and the General Board of the Faculties of the University.

To undertake such other business as may from time to time be assigned to it by the Society or the University.

Membership - Professor Rhys Green, (Chairman), Professor Malcolm Burrows, Dr. Andrea Manica, Professor Bill Sutherland, Ralph Armond, Dr Tony Fincham, Professor Ian Owens.

- **Zoo Advisory Committee**

Terms of Reference – To provide specialist advice on the objectives of the Zoos and on specific aspects of their management; to review the annual business and financial plans for the Zoos and to recommend them to Council; to review any material variances to the plans and, where necessary, recommend to Council remedial actions; to review and recommend to Council any capital developments.

Membership- Nick Jackson(Chair), Sheila Anderson, Dr Andrew Kitchener, Dr Miranda Stevenson, Professor David Houston, Ken Sims, James Breheny (corresponding member, Malcolm Whitehead+)

Members served throughout the year unless specified, + to 17 June 2008, * from 17 June 2008

Day-to-day management is delegated to the Director General and the seven operational directors and monitored by Council through the Officers. All matters of policy are determined by Council and the Officers of ZSL.

Council Members/Trustees

The following were Council members in the period 1 January 2008 to the date of this report unless otherwise indicated.

President

Professor Sir Patrick Bateson PhD, ScD, FRS

Secretary

Professor Paul H Harvey BA, MA, DPhil, DSc, FRS

Treasurer

Paul Rutteman CBE, BSc(Econ), FCA

Vice Presidents

Sheila Anderson BSc (Hons), FBAASc

John Edwards MA, FLS

Richard Melville Ballerand BSc (Econ), BSc, DCouns, FLS, FRUSI*

Robin Bidwell PhD, CBE*

Jonathan Boyce PhD, DM, MA, MSc, FRCP, FFPH

Martin Cooke MSc, MA, VetMB, MRCVS, Cert VPH(MH)

David Dixon PhD, FIBiol

Andrew Greenwood MA, VetMB, DipECAMS, FIBiol, FRCVS+

Ray Heaton CertEd, BEd, GIBiol, MSc, FRGS, FLS

Professor David Houston BSc, DPhil

Nick Jackson MBE

Andrew Kitchener BSc (Hons), PhD

Alistair Land MA, FLS*

Sir William McAlpine BT

Azra Meadows MSc, PhD, CBiol, MIBiol, FLS

Mark Ridgway BSc, PGCE, FLS+

Sean Rovai DCA, MTSI+

Martin Rowson MA

Anthony Sheridan BSc (Econ)*

Ken Sims

Robert Wingate MSc

Professor Roger Wotton +

+ to 17 June 2008

* from 17 June 2008

Directors

Director General

Ralph Armond

Finance Director

Mike Russell

Human Resources Director

Ian Meyrick

Zoological Director

David Field

Conservation Programmes Director

Dr Jonathan Baillie (from 11 September 2008)

Director of the Institute of Zoology

Dr Tim Blackburn (from 11 September 2008)

Marketing & Communications Director

Rich Storton (from 1 October 2008)

Development Director

Jackie Tanner (from 17 November 2008)

Summary

The impact of the economic downturn made its mark on the society with technical adjustments required for the unrealised loss on the value of our investments (£1m) and the FRS17 adjustment for the Pension Scheme (£3.8m). These contributed significantly to a deficit of £4.3m but do not, of course, impact on cash. The underlying financial performance of ZSL before these adjustments was a surplus of £0.5m.

2008 marked the eighth year of the Institute of Zoology's partnership with the Department of Zoology at the University of Cambridge. A review of the Institute's work carried out in 2008 highlighted the numerous research activities and collaborations that have been stimulated by this partnership and in particular the result achieved in the 2008 round of the Research Assessment Exercise was outstanding. Our research projects continue to have strong policy implications for highly topical conservation issues, including the bushmeat trade, global assessment of threatened species, disease risks to wildlife and the ecology and behaviour of important native species.

The Zoos made very satisfactory progress in 2008. Exhibits such as Gorilla Kingdom have continued to impress, develop and contribute to increasing visitor satisfaction. 2008 exhibits – the Blackburn Pavilion and Cheetah Rock opened on time.

The contribution of the Zoos to field conservation continued to increase, with the success of the species recovery programme for corncrakes and, more recently, red barbed ants, as well as the acclaimed Project Seahorse.

Our staff continued to make an invaluable contribution to the zoo and conservation community with their increasing number of lectures, publications and positions of influence such as TAG chairs.

Biota

ZSL continued to provide management services to its non-trading subsidiary Biota, which is a separate registered charity, in respect of Biota's involvement in the aquarium being planned for Silvertown Quays in London Docklands. Silvertown Quays Limited (SQL) are the developers responsible for the total £1.5bn development at Silvertown Quays of which Biota is part.

Detailed design of Biota began in November 2007 with design completion planned for autumn 2009.

However, the current financial market conditions have caused significant delays to the whole project and SQL have put work on the project on hold while they review the overall development programme. A revised timetable for starting Biota is not yet fixed or agreed.

Silvertown Quays Limited along with its partners, the London Development Agency, KUD Limited and ZSL are still fully committed to the development of the Silvertown Quays project, of which Biota is a part, providing that funding to take the project forward is forthcoming.

At this time, with no immediate start of the project on the horizon, Biota and ZSL Trustees feel it is prudent to make provision for the outstanding debt of £237k due to Biota from SQL.

Achievement of Objectives

Progress made towards achieving the 2008 objectives is shown below:

Goal one: To improve the integration of our science, conservation, education, and site based operations to enhance our effectiveness in achieving our goals and improve the status of target species and habitats.

Significant events in science

The Institute of Zoology, the scientific research wing of ZSL, undertakes relevant, high quality biological research and training to anticipate and respond to conservation research priorities. We communicate the results of our research worldwide to conservation practitioners constantly improving the ability to protect wildlife.

December 2008 saw the release of the results of the 2008 Research Assessment Exercise. The RAE is a six-yearly review of the quality of all UK academic departments, based on grant income, research outputs and strategies, graduate student supervision, and quality of the research environment. The Institute is not formally required to submit to the RAE, but does so to ensure that the quality and focus of its research is maintained. The Institute of Zoology fared poorly in the previous RAE, but this time showed a dramatic improvement. The overall quality score for the Institute placed it above the equivalent departments at UCL, UEA, Sussex, Southampton, Leicester, Durham, Bath, and Liverpool, all of which had rated higher than the Institute in the previous RAE. Indeed, the Institute increased its ranking in the assessment more than any other department bar one. By any measure we can be proud of the result, which is a testament to the hard work of all Institute scientists over the past 6 years.

Contact	Grant Title	Funded By
Collen, Ben	Development and implementation of the Living Planet Index 2006-2010.	WWF International
Rogers, Alex	Benthic biodiversity of seamounts in the southwest Indian Ocean.	NERC
Rogers, Alex	CoralFISH: Assessment of the interaction between corals, fish and fisheries, in order to develop monitoring and predictive modeling tools for ecosystem based management in the deep waters of Europe and beyond.	European Commission
Jepson, Paul; Deaville, Rob	Additional funding for the construction of a new web-accessed database for the UK Cetacean Strandings Investigation Programme (UKCSIP).	DEFRA
Durant, Sarah	ZSL internal transfer from the Cheetah Rock exhibit to the Tanzania conservation projects.	Zoological Society of London
Sumner, Seirian	Beeworm: molecular basis of immunity and parasitism in a bumblebee-nematode host-parasite interaction.	Science Foundation Ireland
Collen, Ben	Development and implementation of the Living Planet Index 2006-2010.	WWF International
Rogers, Alex	Macaroni penguin conservation in the southern ocean.	Charities Advisory Trust
Collen, Ben; Baillie, Jonathan	Development and implementation of the Living Planet Index.	UNEP
Jepson, Paul; Deaville, Rob	Cetacean strandings around the UK coast.	Defra
Sumner, Seirian	Is nest-drifting behaviour an insurance policy for maximising indirect fitness in primitively eusocial paper wasps?	NERC
Jones, Kate	Philip Leverhulme Prize (awarded to Kate Jones).	The Leverhulme Trust
Rogers, Alex; Hart, Tom	Conservation genetics of macaroni penguins.	United Biscuits (via ZSL Development Dept.)
Collen, Ben	Populating the Arctic Species Trend Index: Arctic vertebrate population trend data entry.	Environment Canada

Scientific highlights for 2008

Particular successes here include the fact that Dr. Alex Rogers raised more than £700,000 for his research this year alone, and that Dr. Kate Jones was awarded the highly prestigious Phillip Leverhulme Prize.

Other noteworthy items for 2008 that involved cross society collaboration included EDGE and the continued media success of IoZ projects.

Institute scientists published seven papers in the prestigious journals *Science*, *Nature* and *Proceedings of the National Academy of Sciences, USA*. Those with an asterisk included cross-society collaboration.

Blackburn, T.M. (2008) *Using aliens to explore how our planet works*. *Proceedings of the National Academy of Sciences of the United States of America* 105(1): 9-10. DOI: 10.1073/pnas.0711228105

Jones, K.E., Patel, N.G., Levy, M.A., Storeygard, A., Balk, D., Gittleman, J.L. and Daszak, P. (2008) *Global trends in emerging infectious diseases*. *Nature* 451: 990-994. DOI: 10.1038/nature06536

Ewers, R.M. and Didham, R.K. (2008) *Pervasive impact of large-scale edge effects on a beetle community*. *Proceedings of the National Academy of Sciences of the United States of America* 105(14): 5426-5429. DOI 10.1073/pnas.0800460105

Carpenter, K.E., Abrar, M., Aeby, G., Aronson, R.B., Banks, S., Bruckner, A., Chiriboga, A., Cortes, J., Delbeek, J.C., DeVantier, L., Edgar, G.J., Edwards, A.J., Fenner, D., Guzman, H.M., Hoeksema, B.W., Hodgson, G., Johan, O., Licuanan, W.Y., Livingstone, S.R., Lovell, E.R., Moore, J.A., Obura, D.O., Ochavillo, D., Polidoro, B.A., Precht, W.F., Quibilan, M.C., Reboton, C., Richards, Z.T., Rogers, A.D., Sanciangco, J., Sheppard, A., Sheppard, C., Smith, J., Stuart, S., Turak, E., Veron, J.E.N., Wallace, C., Weil, E. and Wood, E. (2008) *One-third of reef-building corals face elevated extinction risk from climate change and local impacts*. *Science* 321(5888): 560-563. DOI: 10.1126/science.1159196

Clubb, R., Rowcliffe, M., Lee, P., Mar, K.U., Moss, C. and Mason, G.J. (2008) *Compromised survivorship in zoo elephants*. *Science* 322: 1649-1649. DOI: 10.1126/science.1164298

Davies, T.J., Fritz, S.A., Grenyer, R., Orme, C.D.L., Bielby, J., Bininda-Emonds, O.R.P., Cardillo, M., Jones, K.E., Gittleman, J.L., Mace, G.M. and Purvis, A. (2008) *Phylogenetic trees and the future of mammalian biodiversity*. *Proceedings of the National Academy of Sciences of the United States of America* 105: 11556-11563 Suppl. 1. DOI: 10.1073/pnas.0801917105

*Schipper, J., Chanson, J.S. et al (inc Baillie, J., Bielby, J., Collen, B.) (2008) *The status of the world's land and marine mammals: Diversity, threat, and knowledge*. *Science* 322: 225-230. DOI: 10.1126/science.1165115

Living collections highlights

Mammals

The transfer of Sumatran tigers at London. Due to incompatibility with the male, 'Sarah' returned to Dudley and 'Raika' to London. Introductions between 'Lumpur' and 'Raika' proceeded extremely well, with numerous attempted matings observed, the pair bonding well and sharing shelter areas.

Other notable transfers include two slender loris from Frankfurt and Bochum, pied tamarin to Belfast, pied tamarin from Mulhouse and female western lowland gorilla 'Mjukuu' from Chessington.

Notable mammal births at London have included Panay bushy tailed cloud rats, titi monkey, warthog, two Sulawesi crested macaques and a Malayan tapir. An okapi was also born, but unfortunately the calf died after a short time.

For the critically endangered white-naped mangabey, a pregnant female, 'Leonie', underwent a Caesarean section which meant she was unable to bond with the female young, 'Conchita' who was rejected and subsequently hand reared. Every effort was made to maintain contact with conspecifics throughout the rearing process and to date she is integrated with the group, being allowed access to a creep area as necessary. A second mangabey was born not long after 'Conchita' and successfully parent reared. Guereza colobus – following previous stillborn neonates, both females gave birth to healthy young with the group all integrated and accessing the island daily.

Notable deaths include 'Bobby' the western lowland gorilla, golden lion tamarin, Arabian gazelle, black tailed silvery marmoset, and six Rodrigues fruit bats (from a consignment of 10 animals from Mauritius).

At Whipnade a male Asian elephant calf was born to 'Azizah' and officially named 'Donaldson', after a ZSL donor. Artificial Insemination (A.I) was performed on 'Mya' by Thomas Hildebrandt, but subsequent scanning indicated the A.I seemed to have been unsuccessful. 'Kaylee's' foetus appeared to be doing well,

and 'Karishma' was confirmed pregnant. This will be her first calf and is due April 2010. The new elephant arena was completed, with the demonstration receiving very positive public feedback.

Other notable births throughout the year at Whipsnade have included Southern white rhino, Przewalski horse, scimitar horned oryx, reticulated giraffe, Persian onager and gemsbok. Notable transfers have included greater one horned rhino 'Jaffna' - returned to Basel, male greater one horned rhino from Warsaw, male bongo from Berlin, six Northern cheetah from the UAE, two male Southern white rhino to Gaia Park, NL, pygmy hippos from Tenerife and Aalborg, Grevys zebra to Edinburgh, scimitar horned oryx to Le Pal and reticulated giraffe from Dvur Kralove.

Birds

Successful avian breeding this year has included toco toucans, a parent-reared hyacinth macaw, Mindanao bleeding heart dove, Abdims stork, hooded pitta, Mt. Apo lorikeet and hammerkop. Notable transfers include *Amazilia* hummingbirds from Germany, copper chested sunbirds (donation from private collection), Congo peafowl and red whiskered bulbuls from Copenhagen, Victoria crowned pigeon from Walsrode, Darwin's rhea from Edinburgh, and ultramarine grosbeaks and wattled jacana from Frankfurt.

Reptiles and amphibians

Within the Herpetological Department significant breeding achievements have included beaded lizards; red-tailed racer snakes; Bicolored dart frogs; Saharan spiny-tailed lizard; blue poison dart frogs; Himalayan newts; Rhinoceros ratsnake; rhinoceros ratsnakes; a plumed basilisk; death adders; emerald tree boas; gila monsters; Philippine and Sailfin lizard. Breeding trials were established for the Whipsnade Annam pond, Kwangtung river and three striped box turtles.

Invertebrates and fish

In BUGS notable reproduction included 108 daughter colonies of various corals in the aquarium; post wintered Red Barbed Ant queens produced egg batches which have developed through to post emergence stage pupae; *Partula rosea* (an extinct in the wild species); Hercules beetles; Imperial Scorpions and Bermudian land snails.

In the Aquarium a first batch of Spiny Seahorse fry of the season was born, six being reared in the new Kreisel system; first eggs from newly arrived endangered Charco Pupfish; first Corfu Killifish hatching of the year; significant reproduction of programme livebearers, pupfish, native seahorses; spawning observed in black bar myleus for first time, no eggs retrieved.

Horticulture

The Horticultural Department has been active not just in maintaining the site appearance. Great progress has also been made on the native species front, with an extra grant from Natural England being approved for fencing off the SSSI at Whipsnade. Consultations with the Forestry Commission over fenced woodland compartments, have resulted in agreement to remove some areas, and to review overall management of these areas. In May, the Horticultural Department organised ZSL London Zoo's participation in Plant Conservation Day, an event held worldwide. The day was a success with visitors and helped to raise ZSL's profile amongst zoos and other organisations. Managing the Regent's Park site for local biodiversity has been one of the key drivers of the department's management approach. Part of it has been to develop a better understanding of the site within the context of urban biodiversity, to influence maintenance schedules and actions. In the process, the Department has been working very closely with other organisations, such as The Royal Parks and the Westminster Biodiversity Partnership, to name just a couple.

Veterinary

The Veterinary Department continued its extensive commitments teaching the MSc WAH and WAB 2007/08 intake and acted as both examiners and project markers for both the WAH and WAB. The year concluded with a day of project presentations. Members of the Veterinary Department had supervised and contributed to a number of the projects including ultrasonographic anatomy of the elephant eye, anaesthesia in wallabies, chytridiomycosis in frogs sold at reptile fairs and faecal cortisol measurements in gorillas. Andrew Routh chaired one of the sessions. During the summer the Veterinary Department hosted ten veterinary undergraduates and nine Veterinary Nurses for their Extra Mural studies. Each veterinary undergraduate is on a fixed three-week placement and has to research and present on a topic of interest. This year topics have included sudden deaths in chimpanzees, vitamin E in elephants, the value of troponin as a marker for cardiac disease and mineralisation of blood vessels in feather-tailed gliders. RVC

elective students had part of their clinical rotation at ZSL LZ and WZ. Tai Strike was an examiner for the students on this rotation.

Members of the department undertook extensive fieldwork in support the mission and gave lectures and chaired a number of Taxon Advisory Groups (including Hornbills and Toucans, Fish and Aquatic Invertebrates, Terrestrial Invertebrates and Herp TAG).

Zoo Conservation Overview 2008

Species recovery programmes

Corncrakes – Whipsnade bred 156 chicks of which 130 were sent to the Nene Washes at approx 12 days of age. The percentage of hatching and fertility was higher than last season, however the percentage of chicks sent to the Nene washes and the rearing success was lower than last year. For the first time in this project, chicks were also blood sampled for sexing. Eventually 94 chicks were released and 15 chicks were kept behind for overwintering at Whipsnade for release next spring. This means that 83.8 per cent of chicks going to the Nene washes were either released or will be released next spring bringing the eventual rearing success from hatching at WZ to release at the Nene washes to 73.1 per cent. The fantastic result of 14 males returning to the Nene Washes is hopefully the start of a sustainable population of corncrakes in South East England.

Red barbed ants - Matthew Robertson and Paul Pearce Kelly conducted field work on the Isles of Scilly surveying and collecting red barbed ant queens followed by two subsequent field releases of colonies of red barbed ants which were released onto Cobham Common. PPK attended an end of year meeting at Surrey Wildlife Trust where it was confirmed that an estimated 10 of the 20 released colonies are still surviving.

Aquarium conservation projects

Project Seahorse - awarded the British and Irish Association of Zoos and Aquariums 'Best Field Conservation Project'. Project Seahorse was awarded a further £40,000 from BBC Saving Planet Earth to support 'Rapid Assessment of Seahorse Populations and Habitats Across the Danajon Bank (central Philippines) for Conservation Action'. Heather Koldewey and Alison Debney co-hosted a well-attended scientific meeting at ZSL on UK seahorse and pipefish populations. A series of posters on Project Seahorse's work in Europe was presented.

Mamiraua - Brian Zimmerman participated in the Mamiraua sustainable ornamental fish project in Brazil looking at fish welfare issues with imports; ZSL co-organised workshop on sustainable acquisition in aquariums at the International Aquarium Congress in Shanghai (with WAZA, South African Association for Marine Research, John G. Shedd Aquarium) and prepared the briefing document. The workshop was attended by Brian Zimmerman and Rachel Jones.

The 11th annual Reef Conservation UK conference was hosted by ZSL.

Vulture Recovery Programme

Construction of the first phase of the vulture centre in Kasara, Nepal was completed and 14 white-backed vultures caught. Two white-backed vultures hatched and were fully reared at the Vulture Conservation Breeding Centre in Pinjore. These are the first recorded successful breeding of this species in captivity in the region.

Andrew Routh made a technical advisory visit to the vulture captive-breeding facilities in India and attended a major management meeting. The Department played host to two veterinary colleagues involved in the vulture work: Dr Binab Karmacharya from Central Zoo Nepal and Dr Devojit Das from BNHS. Andrew visited Intervet UK and set up lines of communication that should have led to us being able to vaccinate for Avian Influenza and test the subsequent immunity of the vultures in the breeding programme to the disease, but the vaccine import was blocked by the Indian authorities. In early December an outbreak of HPAI H5N1 occurred within 10km of the Assam centre and again support was provided in an application to import vaccine.

Zoo technical support

Technical partnerships initiated with zoos in Ghana and Nepal with MoUs prepared for a five year programme. Sponsorship for Ghana to join PAAZAB was agreed and started as part of the programme.

Discussions and planning continued for the proposed Centre of Excellence in Ghana (a captive breeding and reintroduction centre) with partners in Ghana and Canada.

ZSL provided other technical support to a number of other zoos including Giza Zoo, Kabul Zoo, and Lahore Zoo through correspondence and visits.

Part-funding was obtained from UFAW for a zoo project in the Zanzibar Islands which will not commence until full funding is available.

With EAZA Technical Assistance and Animal Welfare Committee, we contributed to programmes in Romania and in Belgrade Zoo.

Climate Change Impacts Group

Activities include ongoing development and distribution of the “Climate Change and Biodiversity” database; CBSG working group identified threat dynamics and response needs. A resultant WAZA resolution for an urgent international zoo and aquarium community engagement response was passed (the various briefing materials that ZSL has produced to date have been key in providing the essential information necessary for responding to the engagement challenge); amphibian impacts and conservation response poster produced for ZSL International Amphibian Symposium; biodiversity impact presentation and discussions at Manchester University; Impacts and conservation article produced for EAZA magazine; ZSL awarded BIAZA education award for our climate change visitor engagement feature in BUGS.

Zoo Research Activities

Higher education

The support of undergraduate research training projects continued during 2008, a pre-requisite for which was for each student to become a Student Fellow of ZSL. This did not include a number of surveys/questionnaires also completed. Notable research undertaken within the collection includes a PhD Seahorse project, MSc projects studying the use of faecal steroid assays in the management of bird species and also as a management tool with regard to the monitoring of gorilla behaviour. An MSc project focussed on the aspect of supplementary feed competition within the extensive and multi-species Asia Drive-Through exhibit. ZSL further contributed to a PhD study of the locomotory mechanics of cheetah. Undergraduate studies included the possible impact of routine pharmaceutical de-worming treatment of hoof stock upon endemic insect life; a nutritional study of the Aye Aye; a detailed examination of the causes of mortality of callitrichid species held in the ZSL collection for the last 30 years and the impact of visitors upon the behaviour of the gorilla group at ZSL London Zoo tied in with the on-going long-term research of group dynamics and behaviour within the group.

Additional research

Additional physiological studies commenced include the utilisation of selenium species derived from different feed items within the daily ration of the Asian elephant; the behavioural and physiological impact of varying degrees of exposure to artificial uv light in snakes and a detailed study of Komodo Dragon behaviour/physiology in response to meal size, timing of feed and uv light exposure. An *in vitro* fermentation of study of routinely used forage and concentrate pellet feeds was also undertaken.

Veterinary Department research

Research by the veterinary department included management of the meerkats and their diets and allied research continues, in particular with respect to their cholesterol levels. The Department submitted a summary of this work for consideration of an award with BIAZA and received a commendation. Other ongoing research includes the use of a thermography camera to detect seats of lameness in larger mammals, troponin as a marker of cardiac disease, assessment of UV light supply to a number of species, faecal hormone levels in the female giant anteater and the value of sainfoin as a forage.

Aquarium and invertebrate research

Brian Zimmerman compiled locality information for Corfu Killifish for HCMR genetic analysis. He and Rachel Jones provided input into the seafood content of the 2008 menus for catering; A paper by Koldewey, H., Atkinson, J., Shaw, A. called *Threatened Species on the Menu? Towards sustainable seafood use in zoos and aquariums* was published in *International Zoo Yearbook*; RJ submitted a

summary paper on Pink Sea Fan for BIAZA Research news; *A global review of seahorse aquaculture* by Koldewey, H., Martin-Smith, K. was accepted for publication in *Aquaculture*; Rachel Jones presented the Pink Sea Fan Husbandry Guidelines to the Aquarium working group in Weymouth, Paul Pearce Kelly (PPK) and Giovanni Pastorino developed the second research phase of the ZSL site based mosquito survey programme (combining disease vector surveillance and climate change related population fluctuations). PPK had field cricket programme case study review published in special IUCN publication – *Global Re-introduction Perspectives*, together with three *Partula* related publications. Long term *Partula* field Action Plan produced together with International Studbook and revised Husbandry Guidelines.

Nutrition

The systematic review of diets within the collection continues. Special attention has been given to the mammalian and bird species. Reviews responsive to clinical concerns include the giraffid, ramphastid and macaw species in particular. Much improved supply and storage of higher quality forage has been achieved during 2008 allowing a greater degree of dietary balance within the ZSL hoof stock collection.

Conservation Programmes

In 2008 the Conservation Programmes department was reorganized into five regional programmes and seven global programmes. This was done to better coordinate and manage ZSL's conservation work across the Society.

In 2008 the ZSL Conservation Committee was also formed, comprised of representatives from across the Society and chaired by Dr Jonathan Baillie. The objective of this committee is to improve conservation coordination and collaboration across the Society, to identify Society-wide conservation priorities and to ensure that all conservation projects are of the highest possible standard.

Representatives of ZSL gave over 15 presentations at the world's largest conservation congress (the IUCN World Conservation Congress) in Barcelona. Talks were given on subjects such as the status and trends of the world's terrestrial vertebrates, conservation of data-deficient species, global biodiversity indicators, conserving the world's most evolutionary distinct and globally endangered (EDGE) species, conservation on the high seas, and pharmaceuticals and the environment. A ZSL-supported theatre production from Nepal called the Silence of Bardia was also presented and extremely well received.

ZSL has received funds from the Global Environmental Facility to work with Globe International to help communicate conservation science work to the G8+5 policy makers. Specifically, ZSL has been asked to coordinate the scientific input to the new Globe International Commission on Land Use Change and Ecosystems launched in Mexico in November of 2008.

A ZSL conservation database has been developed to house information on conservation projects from across the Society.

The following are summary reports for each of the new programmes:

Indicators & Assessments Unit

High profile documents on the status and trends of the world's species were produced including:

- *2010 & Beyond: Rising to the biodiversity crisis*;
- *The 2008 Living Planet Report*;
- *The Living Planet Index for Migratory Species*;
- *Broadening the coverage of biodiversity assessments*, as part of the *2008 review of the IUCN Red List of Threatened Species*;
- *Using species occurrence data for biodiversity indicators*.

The I&A unit facilitated the addition of 4,850 newly assessed species to the IUCN Red List of Threatened Species, enhancing knowledge of poorly known groups of animals, and setting a baseline from which biodiversity decline can be more accurately gauged.

The Red List Index (developed in collaboration with IUCN and partners) was accepted by the United Nations as a measure for the UN Millennium Development Goals.

In addition to the presentations at the Quadrennial World Conservation Congress in Barcelona, talks were given to the UN Scientific Advisory Committee on Migratory Species, and at a number of universities, NGOs and conferences.

In addition to the five policy documents mentioned above, seven papers were published in peer reviewed scientific journals, along with one book chapter.

Several media releases resulted in widespread coverage of State of the Planet stories. More than 50 interviews were given by I&A unit staff on national and international TV, radio and print press. During 2008 the Indicators and Assessments (I&A) Unit was awarded a total of £377,381 from eight different grant holding and charitable trusts

EDGE of Existence

EDGE Amphibians launched on 21st January 2008.

Ten EDGE Fellows have received support from the programme this year for carrying out novel conservation research on top 100 EDGE mammals:

- Vijitha Perera, Slender loris (Sri Lanka)
- Uuganbadrakh Oyunkhishig, Long-eared jerboa (Mongolia)
- Bayarbaatar Buuveibaatar, Saiga antelope (Mongolia)
- Adiya Yadamsuren, Bactrian camel (Mongolia)
- Yuan Lei, Bactrian camel (China)
- Piyathip Piyapan, Bumblebee bat (Thailand)
- Grace Wambui Ngaruiya, Golden-rumped elephant shrew (Kenya)
- Kimitei K Keneth, Hirola antelope (Kenya)
- John Konie, Pygmy hippopotamus (Liberia)
- Osé Pauléus, Hispaniolan solenodon (Haiti)

Four EDGE Fellows have been identified for the EDGE Amphibians programme to focus on the Sagalla caecilian (Kenya), purple frog (India), South African ghost frogs and Chile Darwin frog and will begin receiving support in early 2009.

The EDGE Fellows Training Course (August/September) was attended by six of the current Fellows. The two-week course held at ZSL London Zoo provided training on various aspects of conservation, including practical monitoring skills, project planning, environmental education, fundraising, communicating conservation and conservation action planning.

Ben Collen (IoZ), Janna Rist (IoZ) and Olivia Daniel (IoZ) travelled to Sapo National Park, Liberia (January) to establish a camera-trapping monitoring programme focusing on the pygmy hippo and other rare and threatened species in the area. The results of the camera-trapping programme are contributing to a wider biodiversity monitoring programme at Sapo National Park run by the Liberian Forest Development Agency (FDA) in collaboration with FFI. This information will inform conservation planning for the park. Kate Jones travelled to Thailand where she ran an iBats workshop on monitoring bat populations using vehicle-mounted bat detectors (March).

Raj Amin and Carly Waterman visited the Sri Lankan Ministry, potential collaborators and EDGE Fellow in Sri Lanka to initiate the red slender loris project in the wet zone of Sri Lanka. This was followed by the establishment of a Steering Committee comprising Ministry representatives and key project staff to guide the project forwards (August).

Grace Wambui (EDGE Fellow) participated in two expeditions to the Boni Forest in northern Kenya to carry out an inventory of the mammal fauna in the area. The second survey, carried out in collaboration with Kenya Wildlife Service (KWS), resulted in camera-trap photos and the collection of a voucher specimen of an unidentified species of elephant shrew. Analyses are currently underway to determine whether this is a new species.

Sam Turvey (IoZ) and Leigh Barrat (vaquita.org) led an expedition to China to investigate extinction drivers in Yangtze freshwater cetaceans. A series of interviews were conducted with c. 600 fishermen throughout the historical range of the baiji along the mid-to-lower Yangtze, as well as with key Chinese figures involved with baiji conservation over the past few decades.

Helen Meredith, Sally Wren and James Reardon (CP) participated in a three-week expedition to Central Chile (November) to survey for the possibly extinct focal species the Chile Darwin's frog (*Rhinoderma rufum*), elucidate the reasons for its decline (including chytrid monitoring within the range), train EDGE Fellow Claudio Soto Azat in amphibian surveying techniques, and plan future long-term projects to conserve Chilean EDGE amphibians, especially the *Rhinoderma*.

When the EDGE Amphibians launched on 21st January media coverage included features in the Metro, Times, Daily Mail, Guardian, Independent, New Scientist, BBC News Online, Live Science and National Geographic websites. Also BBC Breakfast, BBC Newsround, Channel 5 news, BBC World Service, BBC

Radio 4 Today programme, BBC Radio 5Live, BBC Radio Wales and various regional BBC Radio stations.

Helen Meredith presented a talk to 200 people at a “Life in Cold Blood” event organised by Froglife at the University Museum of Zoology in Cambridge (February).

A Pygmy hippo press release announced the first photo of a wild pygmy hippo in Liberia. The story was picked up by over 60 different newspapers and online articles (March).

Long-eared jerboa featured on the BBC News website as part of an article announcing the launch of embedded videos on the site. It was selected because it was one of most popular videos from recent times (April).

Marine and Freshwater

Westminster Council, supported by the Royal Parks and ZSL launched the Westminster Biodiversity Action Plan. ZSL is on the steering committee and is lead on many species/habitats.

A community-led Mangrove Restoration project in the Philippines was launched this year with a new ZSL office opening in Iloilo City, which will be the hub for the community-based Mangrove Rehabilitation Project. A tri-partite Memorandum of Agreement (MOA) was signed with the Department of Environment and Natural Resources (DENR) and Bureau of Fisheries and Aquatic Resources (BFAR).

A mangrove seminar/training workshop was organised by the ZSL Philippines team to raise awareness in the local communities and local government about the role and function of mangroves, and the rights of communities to manage the resources. Participants included officials from Local Government Units (LGUs) from the neighbouring municipalities of Tangalan and Ibajay and Baranguay officials, and stakeholders (fisherfolk) and representatives of the Local Government Agencies BFAR-CENRO.

ZSL hosted the UK Eel Conservation Group meeting (July). Nine speakers from eel research and conservation presented a range of findings/work that will help to focus conservation and management goals for this endangered species. Participants attended from DEFRA, CEFAS, Environment Agency (EA), Kings College London, UK Glass Eels Ltd and Fishpass Ltd.

Project Seahorse was awarded the British and Irish Association of Zoos and Aquariums ‘Best Field Conservation Project’.

Conservation monitoring continues in the Thames. A further fish, the greater weever, was added to the species list of the Thames. An MSc research project was completed on the population increase of pipefish in the Thames Estuary linked to the population explosion in the North Sea.

ZSL Internal Catering and Hospitality committed to only serving sustainable fish.

A joint press release was released between ZSL and the Environment Agency relating to the first sighting of the greater weever fish in the Thames estuary found as part of the Tilbury fish surveys. It attracted stories from the Daily Mail, Sun, London Paper, Metro and Independent among others. Matt Gollock was interviewed on BBC Radio Essex.

A large amount of media interviews/exposure (national/local TV, radio and print media) for the ZSL team attending the mass stranding of common dolphins in Cornwall, CSIP was generated.

The documentary film featuring research by Project Seahorse biologists has been awarded the Algarve Maximus Award for the Media category.

Over 20 publications and reports were produced.

Approximately £1,190,000 was raised from 14 sources for Marine and Freshwater activities across the Society.

Wildlife Health

A new Wildlife Health Conservation Programme was formed. This programme focuses on international Wildlife Health capacity building to enable countries throughout the world to address the growing number of conservation related wildlife health challenges.

Dr Richard Kock completed a six-week consultancy in Gondar, Ethiopia to produce a wildlife health module for the University Veterinary Faculty. Meetings were held between Dr Kock and the Director of the Ethiopian Wildlife Authority on a new wildlife health capacity building project for Ethiopia proposed jointly with WCS and the new ZSL global programme CP Wildlife Health. The principles were agreed and a written proposal for submission to bilateral and other donors to be prepared.

Dr Kock spent time in Gujarat State, India, on request of the State Government and Indian Forest Department to examine the problem of nilgai antelope, crop depredation and advice on potential solutions including capture and translocation. A proposal for resolving this conflict to include ZSL training and scientific inputs was submitted by the PCCF of the State to the Government for funding.

The IUCN Barcelona World Conservation Congress was attended. Dr Kock organized a workshop on Pharmaceuticals in the Environment, which was well attended and resulted in a number of new international contacts interested in supporting this initiative.

Drs Amin and Kock helped set up the Intensive Protection Zone (IPZ) in Tsavo West NP and subsequent reintroduction of rhinos from Ngulia Rhino Sanctuary. This programme is in its early phase and currently has a number of funding proposals submitted. Funding for the Saudi based Wildlife Health work has been written into the new contract.

More than 20 papers and documents were produced.

Field Conservation Education

The Field Conservation Education (CEPA) programme aims to help Conservation Programme Managers and others throughout ZSL integrate 'people' elements into their conservation programmes and projects. It is a reactive programme with few, if any, projects of its own, that aims to advise, support and add value to ZSL Conservation Programmes, both field and zoo-based. Understanding the 'people' elements of conservation is central to the success of almost all ZSL conservation projects. This means baseline research to determine where people impact on a conservation scenario and focusing on the relevant target audience(s), then designing an appropriate 'intervention' aiming to change attitudes and behaviour. The above process of CEPA (communication, education and public awareness) may be aimed at government officials, local communities, schools or wildlife staff, depending on the nature of the issues to be addressed. The interventions themselves are well planned using elements drawn from fields as diverse as learning theory and social marketing. They should be incorporated into conservation plans, strategies and funding proposals.

Much of 2008 was spent introducing the concept of CEPA to ZSL staff and volunteers. CEPA for ZSL field conservation education is now a main strategic theme in the new ZSL Discovery and Learning Policy. Currently, the Head of Discovery & Learning represents the 'CEPA view' on ZSL's Conservation Committee. Ten banners highlighting ZSL's conservation work were installed in the ZSL Whipsnade Zoo Wild Bite Café. A new display was produced for the mountain chicken bio secure unit at ZSL London Zoo to highlight ZSL conservation and research work on this species.

The process of CEPA and social marketing was included as a two-day section on the EDGE Fellows training course in September. This was one of the highest marked sections of the course in participant evaluations.

Conservation Breeding and Reintroduction

This programme officially started at the end of 2008 and the major highlights are currently reported elsewhere.

Business and Biodiversity

An extensive review was completed outlining opportunities for ZSL to engage with industry. This report will form the basis of the new Business and Biodiversity programme.

Africa

At the Mikongo Conservation Centre habituation and research into gorilla socio-biology and health was ongoing throughout the year. A total of 254 tourists visited the site in 2008.

Accompanying a Directors' trip, Stella Kondylas, a successful applicant to the ZSL Field Conservation Fund, spent three weeks in February in Gabon working on an eco-tourism strategy for the Mikongo Conservation Centre. The findings of this work and a future eco-tourism strategy were presented later in the year.

In the Virunga National Park, DRC, Dr Tim Wachter conducted a two and a half week training course in mammal identification in October which was attended by 60 ICCN rangers.

A three-month consultancy (June-September) with Stuart Nixon was conducted to assess the status of okapi in the Watalinga forests in the northern sector of Virunga NP. Following completion of the study, ZSL held a workshop in October in Goma to discuss the study's results and produce an action plan for okapi conservation in the Park. The workshop was attended by 40 people including representatives from the government and NGOs operating in the area.

For the Wildlife Wood Project (WWP) in Ghana and Cameroon MOUs were signed between WWP-Cameroon and the Department of Biology and Plant Physiology at the University of Yaounde and the Centre Regional d'Enseignement Spécialise en Agriculture (CRESA). The WWP will supervise MSc

students' fieldwork and train them in wildlife monitoring techniques and socio-economic investigation. Additional MoUs were signed in October between ZSL and the logging companies Pallisco and SFID (part of the Rougier group). Pallisco and Rougier are now official partners in the Wildlife Wood Project. Consultancy work by Dr Wachter was undertaken on North African Antelope conservation (Tunisia, Algeria and Niger). Oryx populations (founded by ZSL in 1986) and their management teams were visited in Tunisia; recommendations on antelope conservation were made in Algeria. A consultancy in Guinea to provide baseline biodiversity monitoring data at the Pic de Fon Forest producing significant camera-trap data (*Picathartes*, *Chimpanzee et al*).

Chris Ransom organized a meeting at the House of Commons in January, chaired by Jonathan Baillie and attended by Barry Gardiner MP, CEOs and Directors of UK NGOs and businesses, to discuss additional legislative options to combat illegal logging. A second meeting, held in March chaired by Noelle Kumpel and convened by Chris Ransom, was held with industry and NGO representatives on behalf of Barry Gardiner MP at the House of Commons to discuss draft legislation on illegal timber prior to its first reading in April as a Private Members' bill.

More than twenty papers and documents were produced.

Approximately £105,000 was raised from five sources.

Asia

ZSL's programme in Bangladesh greatly expanded with the appointment of Dr Adam Barlow and Christina Greenwood as project managers focusing on the implementation of the Bangladesh Tiger Action Plan over 2009/2010. In this context, ZSL has signed a three-way MoU with the Wildlife Trust of Bangladesh and Minnesota University.

In 2008 ZSL Indonesia established a base in Berbak National Park, Sumatra, and carried out exploratory survey work. Berbak is a peat swamp and extremely important for carbon sequestration. As well as basic protection and survey work in the park, ZSL is leading the "Berkak Carbon Value Initiative" which is the subject of an application for "Darwin" funding for 2009-12 and of a partnership with ERM Indonesia, who are assisting with the politics and economics of the project. The goal is to establish a scientifically robust carbon trading programme that will generate sufficient funds to run the national park as well as help Indonesia meet its emission reduction targets.

Also in Sumatra, ZSL contributed to the first-ever monitored translocation of wild "problem" tigers for the country (and only the second in the world) by lending our satellite radiocollar to the Indonesian government for use on one of two tigers translocated from Aceh and released in Tambling Wildlife Reserve in July.

In Russia, our 3-year Darwin grant for Amur leopards and Wildlife Health finished on 31 December although work on sampling will continue until end-March 2009 with additional funds. A major achievement here was the renovation of a wildlife diagnostics laboratory owned by project partner the Primorskii State Agricultural Academy.

In Thailand our Salakpra elephant conflict resolution project got a very positive final review from Darwin and also attracted strong support from the USFWS Elephant Conservation Fund. The project's elephant corridor survey findings and recommendations were incorporated into the 2009-11 work-plan of the Thai Ministry of Natural Resources & Environment, meaning that our work will directly impact elephant conservation all over the country.

The Nepal Darwin Initiative project produced a number of key outcomes despite ongoing political upheaval (Nepal was declared a republic during this year), including: a major census of rhino (and invasive species); introduction of new policy initiatives on anti-poaching and rhino sanctuaries; a revitalised education output in the Bardia National Park communities including the development of a significant community theatre initiative in Nepal performed locally in Kathmandu and around the Terai parks attracting many thousands of people. The play was also performed in London and at the World Conservation Congress in Barcelona. There were considerable capacity building and training outcomes including a five-day scene of crime investigation workshop held in Nepal with over 30 participants from the major national parks.

In Mongolia two guide books for mammals and birds were completed.

More than 15 publications and reports were produced including an important paper by Emily Fitzherbert, on *Biofuels, oil palm, climate and biodiversity* published in *Conservation Biology*. The paper shows the impact of oil palm on carbon emissions, tackling the claim that biofuel from oil palm is good for the climate. They show that it would take 75 years for the benefits of biofuels to outweigh the losses caused

by forest clearance or 600 years if the forest was on peat soils. The paper received significant media interest, with Emily quoted and ZSL mentioned in several articles including BBC Online. Approximately £360,000 was raised from five sources.

UK & Mainland Europe

The UK & Mainland Europe programme was formed in the middle of 2008.

The current agreement for the Natural England/ZSL partnership on health surveillance for the Species Recovery Programme came to an end in March. Natural England has confirmed that they wish to sign up to another three-year agreement.

Twenty colonies of red-barbed ants were released onto Cobham Common. Paul Pearce-Kelly attended an end-of-year meeting at Surrey Wildlife Trust where it was confirmed that an estimated 10 of the 20 released colonies are still surviving.

In September ZSL held a stakeholder meeting to revise aims and objectives relating to the Westminster Biodiversity Action Plan for species for which ZSL is the lead-partner (house-sparrows and buttoned snout moth).

In November Jon Bielby organised and attended the annual swift nest box check at BUGS! No swifts had successfully nested in the boxes this year. Recommendations were made to improve the possibility of swifts nesting in 2009.

Trent Garner (as part of a consortium with Imperial College London and a European network of collaborators) was awarded €1.5m from EU BiodivERsA for European chytrid surveillance and amphibian conservation work.

Extensive interviews and over 10 papers and were documents produced.

ZSL Website Redevelopment: Science & Education

Work has begun on the integration of the standalone Institute of Zoology (IoZ) website into the main ZSL website. This will allow ZSL to highlight the work of IoZ more prominently to the public, showing the breadth of work achieved by ZSL in this area. This will also allow IoZ to benefit from the range of additional functionality available on the ZSL site. The aim will be to fully integrate the current IoZ website during early 2009.

The Education section of the ZSL website is now a standalone section of the site and no longer called Discovery and Learning. This has allowed us to promote the education work of ZSL at a higher level and has also allowed for the development of a standalone kids' section.

ZSL 'Life' Launch

The re-launch of the staff newsletter, rebranded as *ZSL Life* has received a warm response from staff and volunteers. It is a great communication tool for ZSL to discuss all areas of the society and promote understanding of the great work the organisation does.

Goal two: To improve the Visitor Experience to our sites to inspire visitors through continued exhibit and site development and showcase our science and conservation.

Market research

Visitor research tells us what visitors think of the ZSL experience and measures key performance indicators. These increased across the board from summer 2007.

At ZSL London Zoo 'Overall enjoyment' increased significantly to 7.9 (7.5 in summer 2007), and the mean scores for 'value (in scores out of 10) for money' increased to 7.3 (6.6 in summer 2007). Visitors propensity to revisit in the next 12 months increased marginally to 4.3 (4.2 in summer 2007) but their likelihood of recommending a visit increased to 8.4 and is the highest ever recorded.

At ZSL Whipsnade Zoo there was similar success, even though the scores were already high. 'Overall enjoyment' at Whipsnade increased to a very strong 8.7 (8.4 in summer 2007) and the mean scores for visitors propensity to revisit in the next 12 months increased to 6.2 (5.9 in summer 2007).

What's more, 73 per cent of ZSL London Zoo visitors and 87 per cent of visitors to ZSL Whipsnade Zoo agreed with the statement 'By visiting the zoo today I have learnt about the conservation of animals and their habitats'.

ZSL Website Redevelopment

The ZSL website was redeveloped to improve the design of the site, increasing usability, and content delivery to users. These changes were based on a usability review produced early 2008; the new website was launched during November 2008.

Improvements include:

- Site widening to improve use of space across the site
- Design improvements: freshening the site, providing a less cluttered feel
- Integration of new scrolling selectors, drop downs and rollovers that will improve use of space and content delivery across the site
- Improving a number of key areas, including what's on, shop, tickets, animal sections, conservation, education and site homepages

ZSL Events

Over the past 12 months ZSL has been focusing its efforts on inspiring supporters to support conservation. One of the ways we have managed to do is through a comprehensive Friends and Fellows event programme which caters for both adults and younger supporters. During 2008 we ran events such as 'Beyond the Pond' which gave members the chance to meet our Amphibian experts in the Reptile House at ZSL London Zoo. This event was followed in September by a visit from Sir David Attenborough which was another chance for us to remind our supporters of the importance of conserving amphibian species and the reasons behind their decline.

During the year we also gave members the chance to learn more about the work of the Institute of Zoology by running a 'Behind the Science' event which allowed our supporters to meet the scientists working on various overseas projects. We also ran a 'Go Native!' event which allowed members to visit one of ZSL's Marine and Freshwater conservation projects. The aim of this event was to educate our supporters about the vital work ZSL is doing to manage our waterways sustainably and conserve our native species.

Another means by which we engage supporters and members of the public is through our Scientific Meetings and Symposia which are held periodically throughout the year. The topics are varied, covering a range of conservation and environmental issues. Last year we covered topics which included cheetah and wild dog conservation and communication in mammals. The speakers come from institutions and universities throughout the UK and overseas and these events are free and open to the public.

Animal developments

Outback: Following the transfer of the sloth bears to Whipsnade, the Mappin Terraces were redeveloped into an arid Australasian exhibit - 'Outback'. The exhibit houses red necked wallabies and emu.

Cheetah Rock and Rhinos of Nepal - At Whipsnade, two new flagship exhibits were opened: 'Rhinos of Nepal' and 'Cheetah Rock'. The developments reinforce ZSL's commitment to conservation and breeding of greater one horned rhinos and Northern cheetah. A new sloth bear area was developed at Whipsnade, the three animals have settled in and fully utilise their change of environment.

Lions of the Serengeti - A new meerkat exhibit was developed following a generous donation. This enclosure is situated in the approach to the public viewing area for the lions, and has enhanced the overall visitor experience.

Children's Farm - The Whipsnade Children's Farm was repainted, bird proofed, and new interpretation panels installed. The farm lost the Shire horse 'Oak' this year, due to long term illness, however new additions have included a pair of Baudet de Poitou donkeys and two Highland cows.

Cloze Rainforest Lookout: The Biome underwent major planting at the beginning of the year, following a consignment of plants sourced from a sustainable Tropical Zoo Plant project/nursery in Costa Rica. A breeding success for the year was the birth of a titi monkey, which has integrated well with its exhibit mates. All animals in the Biome have been trained to be weighed and allow chip reading.

Gorilla Kingdom: further development of Gorilla Kingdom Island was completed, including the installation of twelve new dead trees with interlinked branch work, the widening of the moat, planting of various grasses and marginal plants, erection of another shelter and cementing beneath the boardwalk. A new female gorilla 'Mjukuu' arrived from Chessington and appeared to be the link required to gel the rest of the troop together. The gorilla troop came along in leaps and bounds following 'Mjukuu's' arrival and eventually all four animals were allowed twenty four hour access to the island.

'Bobby' suffered from periods of ill health through the year, symptoms of which included passing blood in his urine. He underwent a GA to assess his heart and dentition, however abnormalities were not

detected and his prostate appeared clear. Unfortunately following another episode, 'Bobby' died overnight and a full report is pending.

Blackburn Pavilion - Work on the Blackburn Pavilion was completed on time. The restoration has retained elements of the historic nature of the building while providing an excellent visitor attraction and upgrading the facilities for both birds and staff. The operation of moving the birds back into the house ran smoothly and is a great credit to all those involved. The first bird out into the free flight was a Socorro dove, an iconic first species to celebrate the building. The public opening of the Blackburn Pavilion was a great success, with comprehensive media coverage, and has generated a very positive response from the public. To date, even though the building has only been open for a short period, the exhibit has produced excellent breeding results.

Reptiles - Major animal care facilities upgrades realised in Reptile House including the six main animal rooms; a bio-security Mountain chicken frog breeding facility established and a turtle care facility. Exhibit developments included: Philippine crocodiles in Balcony; Reticulated Python; Golden dart frogs; radiated tortoises into refurbished balcony exhibit and a turtle exhibit area, including a fly river turtle tank.

BUGS and Discovery Centre - Invertebrate exhibit developments included the Moon jellyfish exhibit tank replacement; tropical butterflies re-established in Discovery Centre; Butterfly Paradise exhibit refurbishment (including head and tail section replacements); new prickly stick insect exhibit in BUGS and improved aquatic exhibit quality. Fossil encounter material gathered in readiness for visitor encounter feature in 2009. Facility and welfare developments included major system upgrade of the BUGS aquatic life support systems and associated exhibit care protocols. There have been significant improvements in most hard corals in the BUGS reef.

Aquarium - Concerted exhibit improvement efforts were made in the aquarium - piranhas moved from Hall 1 to Hall 3 as part of major exhibit refurbishment of the tropical freshwater tanks in Hall 3. In addition to the enlarged piranhas feature, other Amazon aquatic species are being featured. A tank in Hall 1 was refurbished with native riverine plant species and common bream.

Goal three: To inform and inspire people to support conservation

Wild About & E-News

The ZSL magazine 'Wild About' is distributed three times a year to coincide with school holidays. In November 2008, Wild About was introduced to the new adopters-only area of the website, where people could access updates on their adopted animal as well as read the latest edition of Wild About. There has been significant conservation issues featured in Wild About over the past year, including cetacean strandings, EDGE, reintroducing Amur leopards back into the wild and the effect of war on conservation efforts abroad. Over the year there were features dedicated to new exhibits at ZSL London and Whipsnade Zoos including the Blackburn Pavilion, Cheetah Rock and Rhinos of Nepal. ZSL produced more than 108,000 magazines last year (36,000 each print run).

The E-news database grew in 2008 and we now have around 30,000 people registered to receive regular email newsletters. From exciting information about zoo developments to updates on field conservation projects, the newsletters are a great platform to increase awareness and knowledge of the work of ZSL.

ZSL website review 2008

During 2008 the ZSL website received a total of two million unique visitors viewing 24 million pages, unique users have increased by 11% on 2007. Each user views on average 10 pages. These are impressive statistics in that web users traditionally view approximately three pages in one sitting, meaning that our users are engaged in our content.

ZSL.org Conservation Section

The ZSL conservation area of the website was improved and reorganised during 2008 as part of the wider site redevelopment. This will allow easier access to our conservation work and highlight its breadth and diversity.

Working with the Conservation Department the section has been developed in line with the department's new regional focus. New selectors and navigation will make it easier for users to find this information. The section has been divided into: animals, regions, projects and issues.

During 2009 we will continue to work with the Conservation Department to add content about each of our projects.

Media Success

Media coverage in 2008 has been higher than ever before, evaluated mainly on the basis of equivalent advertising value (EAV). EAV for 2008 was a total of £16.3m, against total expenditure of £130,750.

The press department worked tirelessly to promote the conservation messages of ZSL in tandem with other messages going out. The result of this has been a marked increase in key conservation messages being picked up by the media, particularly in relation to the living collections.

The press department issued a total of 78 press releases during 2008 designed to ensure that our key messages receive maximum exposure and reach the largest number of people. On top of these 24 photocalls were held during the year inviting photographers in to the zoo.

Some of the Media Relations department's greatest successes have included:

- The high-profile launch of The Blackburn Pavilion, which won the BIAZA award for best public relations project, resulted in full page features in four national newspapers and broadcast coverage on BBC throughout the day of the launch.
- EDGE amphibians was launched with great success and helped to cement ZSL's scientific credibility.
- First photographs of the okapi in the wild generated worldwide media interest and drove huge amounts of traffic to the ZSL website.
- Zoo Nights at both ZSL Whipsnade and London were commercially successful and secured media coverage.
- Outback was featured in national newspapers after its launch in August, including a double-page spread in The Guardian newspaper.
- Negative stories surfacing through the year were dealt with to limit damage to ZSL's reputation. These include the death of Bobby the gorilla, an inspection report raising concerns about the tiger enclosure at London, the repeated escape of a cheetah at Whipsnade and a number of reports claiming that elephants suffer in captivity.

Discovery & Learning

A new post of Head of Discovery and Learning (HDL) was filled by Malcolm Whitehead from March. The departments of interpretation, live interpretation (explainers) and education at both zoos, together with a newly created department covering the ZSL Volunteer Scheme, were merged as a single Discovery and Learning (D&L) department.

The first ZSL D&L Policy was produced after a series of consultations across the Society, its staff, volunteers and Council. This, in turn, informed a five year (2009-2013) Strategic Plan for the department.

Schools

School visits – at ZSL London Zoo 104,497 pupils visited ZSL London Zoo during 2008 under the GLA scheme. This is a record and exceeds the previous record set in 2007 by 4 per cent and the attendance budget by 10.9 per cent. A further 22,422 visited as part of other school visits as did 39,966 pupils at ZSL Whipsnade Zoo – an increase of 7 per cent over 2007 figures.

ZSL London Zoo GLA - A second three-year grant was awarded by the Greater London Authority (Mayor of London) to facilitate free entry for Greater London state schools to ZSL London Zoo for the period of 2008-2011. This represents a total sum of approximately £1.5m. The new Mayor, Boris Johnson, has proved to be an enthusiastic supporter of the scheme like his predecessor.

Schools Programme - At ZSL London Zoo many new teaching sessions were introduced, often out in the Zoo, in an attempt to use the unique ZSL resources rather than being confined to classrooms. These included an African Safari in 'Into Africa', a session on birds in the newly revamped Blackburn Pavilion, Science in the workplace, and Darwin's zoo. The department continued to offer SNAB (Salter's Nuffield A Level Biology but now renamed Edexcel) days where Institute of Zoology scientists liaise directly with school pupils. The scheme won a commendation at the BIAZA annual awards ceremony for Formal Education.

Rosie Davison won the BIAZA Formal Education award for her work on phobias with a clinical psychologist. She continued also to tutor keepers undertaking the Animal Management Course, both from within ZSL and collections throughout eastern and southern England.

30 students (of whom half were the statutory 14-15 year olds) were selected for in-zoo work experience from a field of 400.

The department continued to develop a teacher training programme with sessions for PGCE (postgraduate certificate of education) students and links with the Science Learning Centre of London University's Institute of Education.

At ZSL London Zoo classrooms and Education building foyer had a complete redesign with exciting colourful graphics and child-friendly interactives. Also at Whipsnade Zoo the Learning Den had a complete redesign with exciting new graphics and lifesize animal banners.

ZSL Outreach Programme - 431 sessions (312 primary, 119 secondary) were delivered to 17,115 pupils (10,513 primary, 6602 secondary) at 137 schools (105 primary, 32 secondary) from 16 Local Education Authorities. New sessions developed included 'be a zookeeper' (primary), 'living dangerously' (conservation case studies), worldwide webs (food chains), 'animal x murder mystery' (secondary), and 'role of a good zoo' (post 16). A poster about 'what you can do to help wildlife' was produced with sponsorship from Abbey and used in outreach sessions.

Events

D&L events - The D&L department mounted activities for Chinese year of the rat, International Plant Conservation Day, National Insect Week, Halloween and Christmas (Jungle Bells). They also participated in Junior Citizen (with Westminster Council), National Science Week and Camden Green Fair (outreach). 3,150 disabled children attended a special children's day. A number of Animal Encounter days were run for schools from deprived areas in accordance with GLA objectives and following consultation with EcoActive. The education staff mounted a stand at the Science Learning Centre's 4th anniversary exhibition. This featured the new Darwin teaching session and was filmed by Teacher's TV. Other media involvement included pieces on CBeebies radio and a children's version of 'the Apprentice'.

A full programme of animal department and explainer daily activities took place throughout the year. New shows included 'Amphfactor' – a 'game show' format designed to raise awareness about amphibians. 'Beyond the Zoo' was a daily summer event featuring staff from the collections, Conservation Programmes and the Institute of Zoology talking about their work and answering questions from the public. At Whipsnade Zoo the D&L department participated in a rhino sculpture event around the opening of 'Rhinos of Nepal'. They also helped with a summer sand sculpture programme around Cheetah Rock and the Whipsnade Green Fair. In the autumn, education staff ran a very successful careers day for local school students, teachers and careers advisers.

Interpretation

A D&L evaluation group was established. Evaluation was undertaken at the Clore Rainforest Lookout, Rhinos of Nepal, Cheetah Rock, explainer events, the GLA school scheme, and formative evaluation for revised big cat interpretation.

Site presentation initiatives at ZSL London Zoo included the Blackburn Pavilion which opened at Easter. This is a refurbished tropical bird house with a Victoriana theme developed through interpretation. The house features a tropical walkthrough aviary and the UK's only 'on-show' hummingbirds. There is also an iconic mechanical clock designed by the inventor Tim Hunkin. The Blackburn Pavilion featured in an *International Zoo News* article. Interpretation in the Reptile House was upgraded including a new sound system. Alongside this was the development of graphics for a Turtle Ark and a Mountain Chicken biosecure unit. Interpretation was developed for the 'Outback' exhibit with wallabies and emus on the Mappin Terraces. Twenty sculptures, made from recycled materials, were installed around ZSL London Zoo as part of Sustainability week.

At Whipsnade the Rhinos of Nepal, with new graphics and a climb-on rhino play sculpture, opened at Easter. Cheetah Rock, with a number of interactives including a running track and zoetrope, opened at Easter. New graphics and interactives were produced for the Children's Farm. The Wild Bite Café opened in summer. By the year's end, a number of banners about ZSL's conservation work were installed. The Interpretation department also produced internal graphics. Graphics were also produced for the Elephantastic demonstration arena, a new meerkat exhibit and sloth bears

ZSL volunteer scheme

A new post of Volunteer Programmes Manager was filled by Claire Robinson in a newly created volunteer department within D&L, reflecting the fact that volunteers are an integral part of the Society. This post has responsibility for ensuring ZSL follows best practice in deploying volunteers and is responsible for developing the scheme which currently has 420 volunteers in nine roles, giving around 85,000 hours of service which would equate approximately to £700,000 in gross salary terms. CR is a member of Volunteering England, the national volunteer body, and the BIAZA Volunteer Forum.

ZSL's first Volunteer Policy was written, outlining the basis upon which ZSL uses volunteers and how we recruit and manage them. This was produced in preparation for developing a five-year strategy. A major review of the administration of the scheme took place helping to make it less labour-intensive and streamline admin procedures.

A new six-session evening class on the Animal Kingdom was created and delivered to all new recruits in April/May

Learning volunteers (330)

- 123 volunteers were recruited this year. They all received a full four-week induction including an introduction to the Society, customer service training and orientation round the zoos, as well as live interpretation skills.
- Learning volunteers at London performed a vital role in 'staffing' the squirrel monkey enclosure and Clore Rainforest Lookout, as well as Gorilla Kingdom and Butterfly Paradise public areas providing live interpretation in all. A similar role was carried out by volunteers in the lemur enclosure at Whipsnade.
- Part of standard-raising activities included training for the learning volunteers in advanced customer service skills for the information kiosk (LZ) and a consultative exercise in standard-setting for live interpretation at WZ.
- Volunteers on both sites assisted with the delivery of a variety of events: Halloween, Christmas, the Fun Run, members events and, in particular, Special Children's Day.
- In a new activity, WZ volunteers greatly assisted the admissions team by welcoming schools and processing them through the gate in the summer term.

Assistance volunteers (95)

- Two new roles were created: horticulture volunteer and graphics volunteer, both at Whipsnade.
- Keeper volunteers, already very successful at London, were introduced in 2007 at Whipsnade and have now gained the confidence of the keepers.
- The RAF and Yu-Act (Luton) provided several one-day volunteer events to refurbish the railway station, clear scrub from the penguin pool and clear bamboo for the new butterfly garden at Whipsnade.

Goal four: To generate sufficient funds to enable our work to continue and develop

Visitor Income

Marketing efforts at both zoos ensured visitor numbers exceeded budget at both zoos, despite a challenging end to 2008 in a wider perspective.

At ZSL London Zoo total visitor numbers were four per cent up on budget for 2008 at 1,039,039 against a budget of 1m. The annual visitor income per capita figure increased to £9.65 for 2008 from 9.31 in 2007 and admission revenue achieved was £10.029m (2007 £10.3m).

At ZSL Whipsnade Zoo visitor numbers were two per cent up on budget for 2008 at 468,669 against a budget of 460K. However, the annual visitor income per capita figure was £7.77 which was below budget and mainly due to increased membership and promotions including the Kellogg's 2 for 1 promotion. Total admission revenue achieved was £3.6m (2007 £4m)

Commercial Revenues

The commercial revenues generated by our trading subsidiaries (for Retail and Catering activities) totalled £9.8m (2007 £10m) and its £2.7m (2007 £3.1m) surplus was covenanted to the Society.

Website Revenue

During the 12 months of 2008 £1.22m in revenue was taken through the ZSL website.

The site redevelopment included improvements to the shop homepage and ticketing pages, making it easier for users to find and buy ZSL products. The checkout process was simplified to allow for easier purchasing to increase revenue.

Of this total just over half was on line ticket sales, with 23 per cent sales of "Keeper for the Day" experiences and 13 per cent purchases of Animal adoptions. The balance was made up of Memberships, Retail sales and Donations.

Membership & Adoptions

Member and animal adopter numbers increased by 10,000 in 2008, with over 50,000 supporters at the end of the year. Key successes included increasing the retention rate of 'Friends' members to 82 per cent. Overall membership and adoption income was over budget by £218k achieving over £2m in revenue.

The adoption process was redeveloped to create a fulfilment free online offering. This was launched in November 2008 and has already sold 1,700 actual adoptions at a value of £50k.

The new adoption process includes:

- 20 named animals across ZSL London and Whipsnade Zoos
- Password activated, adopter-only web pages specific to each adopted animal
- Introduction of a standard price of £30 per annum per adoption (with the option of an additional donation amount) to replace the current tiered pricing structure.
- An enhanced e-communication strategy for animal adopters, with regular updates from their adopted animal, keepers and other key ZSL staff. This also provides an opportunity to promote other areas of ZSL work, and for cross promotion of zoo based events.
- Complete re-branding of the current adopter web pages
- Inclusion of timed text and emails by the purchaser allowing us to market adoptions as last minute gifts

Fundraising and financial planning

ZSL has a process in place for the annual review and update of its five year strategic plan and long range master plans. As plans for site redevelopment have progressed a strategy is being developed to provide the fundraising infrastructure for major capital campaigns and on-going sustainable support across all of the Society's mission areas: living collections, conservation programmes and research.

Progress against 2008 fundraising targets

- The 2008 target for the development Department was £2.8m.
- Despite an increasingly difficult economic climate and amidst significant staff changes within the Development Department, this target has been secured and banked. This was comprised of:
 - £0.7m received from Trusts and Foundations, with £0.45m secured in grants from new and existing funders;
 - £0.6m received from statutory sources
 - £0.85m received from major donors including £0.4m generated by legacies
 - £0.04m received from companies through tailored memberships

Successes for the year

- New corporate partnerships include: Abbey; United Biscuits and renewal of corporate membership income including Heath Lambert and Mitsui Sumitomo.
- Development of an ethical framework for corporate partnerships, with input from external stakeholders (KPMG pro-bono).
- The Rufford Maurice Laing Foundation, has agreed funding of towards ZSL's 'Wildlife Wood' Project in Cameroon and further monies towards 'working with local communities to evaluate, test and implement potential bush meat alternatives in Equatorial Guinea'.
- £0.26m has been received in 2008 from the Synchronicity Foundation towards the EDGE of Existence program, primarily funding conservation of the Slender Loris in Sri Lanka.
- Final report submitted to the Clore Duffield Foundation in relation to the £1m grant towards the redevelopment of the Clore Rainforest Lookout resulting in the receipt of the final payment of £0.2m.
- A new funding agreement was signed with the Greater London Authority in March/April 2008, securing funding for the Free School Visits and Outreach Programmes from 2008-2011. In light of the impending Mayoral elections, the contract included a break-clause; however, in July 2008 a letter was received from Boris Johnson confirming that the new GLA administration would honour the agreement and that he was pleased to continue supporting ZSL's educational work.
- The Big Lottery Fund International Communities Programme project – *Community-led mangrove forest rehabilitation & management in the Philippines development grant* – began in June 2008, with the first payments received.

- Following our progress report submitted to the BBC Wildlife Fund in September we were invited to submit a proposal for additional funding for two years in relation to ZSL's Project Seahorse and a sum awarded.
- The first installment of Sarah Rihal's three-year pledge to fund the Secret Garden in *Animal Adventure* was received.

The Society gives sincere thanks to all its supporters, Friends, Fellows and volunteers and for those donations from companies, trusts and individuals. Without such support our accomplishments would not have been possible.

Financial Results

ZSL recorded a consolidated surplus on operations of £0.7m, but an overall deficit after £1m losses on the revaluation of investments, of £0.3m. These compare with figures of £3.5m operating surplus and overall surplus achieved in 2007 with only minimal losses on investments. The actuarial loss on the Pension fund was £4.1m (2007 no loss or gain). This leaves Net Movement in Funds as a deficit of £4.4m.

ZSL remains dependent on its two Zoos for the bulk of its income. In 2008, ZSL London Zoo visitor numbers were 1,039,030, a decrease of 69,511 (6.3%) on the previous year which was the highest for 15 years. ZSL Whipsnade Zoo visitor numbers were 468,669, a decrease of 6,953 (1.5%) on last year also the highest for 15 years. The total number of visitors for the two zoos were 1,507,699 (2007: 1,584,163). Income figures benefited from Gift Aid recoveries on day membership which amounted to just over £1.9m (2007 £1.8m) and in total on all sources of income £2.2m (2007: £2.1m).

Both the Institute of Zoology and Conservation Programmes maintained their revenues with new grants received in 2008, but these relate to specific projects and, whilst supporting the mission of the Society, they do not add to the overall surplus to fund future development.

Our costs rose compared to 2007, in areas that included: utilities; maintenance; depreciation and revenue expenditure on new and existing facilities to improve the effectiveness of ZSL; general wage and inflation rises.

The total capital spend of £6.4m (2007: £7.9m) included: completion of the new 2008 exhibits *Blackburn Pavilion (Tropical Birds)* and *Outback* at Regent's Park and *Cheetah Rock, Rhinos of Nepal* and *Wild Bite Café* at Whipsnade; continued commitment to improving the Society's compliance with the Disability Discrimination legislation; its Sustainability profile and significant progress on the exhibit which opened in spring 2008, *Animal Adventure* at London.

As a result of the stock market turbulence during the credit crunch and economic downturn the value of investments held in ZSL's Pension Fund has fallen significantly and the fund fell into a deficit position. The pension scheme deficit of £0.4m (2007: £3.4m asset) will be held within ZSL's unrestricted Pension Reserve. This leaves the Society's overall General (Free) Reserves at £4.9m. The ZSL Trustees increased the funding to 13 per cent in 2008 and further to 15.5 per cent from 1 January 2009 to fund future liability levels. This will continue to be monitored by ZSL and the Pension Fund Trustees on a regular basis.

Our main trading subsidiaries, Zoo Enterprises Ltd and Whipsnade Wild Animal Park Ltd continued to produce results in accordance with Trustees' expectations. The investment in the refurbishment and expansion of Wild Bite Café (formerly Café on the Lake) at Whipsnade was completed on time and has increased both capacity and our ability to produce improved food choices. Early results are very encouraging.

Funds

ZSL's funds as at 31 December 2008 amounted to £45.8m (2007 – £50.1m), after recognising the defined benefit Pension scheme liability of £0.4m (2007 – £3.4m asset). These were represented by buildings and other tangible fixed assets of £35.6m (2007 – £32.3m) with the balance being represented by cash, investments, stocks, pension scheme liability, and debtors less creditors.

ZSL's policy concerning the level of cash and investments is to have funds available to:

- Meet liabilities as they fall due
- Meet emergencies
- Augment the capital expenditure programme from time-to-time as appropriate
- Build up investments over a period with the aim of providing an additional income stream to cover non-commercial activities

The policy is reviewed annually in connection with the setting of revenues and capital budgets.

The Trustees have considered the level of free reserves (that is those funds not tied up in tangible fixed assets, pension scheme liabilities and designated and restricted funds) which amounted to £4.9m at 31 December 2008. The level of free reserves at 31 December 2008 is considered to be sufficient to support the current operations and continue activity in the redevelopment of the zoos, as well as providing adequate funds to meet emergencies.

The Trustees free reserves target is to cover the costs of running the Zoos during an emergency closure to the public, for a period of up to six months. Dependent on season this would require free reserves of between £5m - £7m. Steps including reduction of Capital spend, freeing up of designated reserves and cost reduction are being undertaken to increase actual free reserves.

During the year transfers of £35.6m were made from the General fund to a new designated tangible fixed asset fund to separately identify the resources that have been used to acquire tangible fixed assets. The value of this fund at the year end represents the net book value of tangible fixed assets.

Investment Policies

ZSL holds most of its available funds in bank deposits. In addition, ZSL holds investments of £2.9m (2007 - £3.9m), primarily in the Scientific Fund. All investments are held in a mixture of fixed interest, UK equities and overseas equities, with the intention of providing a balance of income from dividends and capital appreciation.

Interest earned on bank deposits is close to the higher levels of the market for triple A investments and there have been good levels of returns from dividends contributing to our scientific work.

Performance of the capital value of our investments, have been very disappointing but marginally outperformed the benchmarks in the difficult markets being experienced, especially in the second half of the year. Losses, mainly unrealised, amounted to almost £1m in 2008 (2007 - £8k).

The Charter and Byelaws of ZSL give the Trustees the right to invest the funds of the Society in such investments, securities or property as may be thought fit. Investments are managed by Newton Investment Management Limited who have been instructed not to directly make investments that are contrary to the Society's stated purpose and objectives. Specific areas of constraint in investment include companies involved in animal testing, marine harvesting, high environmental impact products and practices utilising Red List ingredients and substances and those using tropical hardwoods from unsustainable sources. In addition, all shareholder voting is to be actively used and conducted in line with these socially-responsible guidelines and principles.

The returns from our investment portfolios were behind the benchmark returns (Scientific Fund -18.1%, benchmark -8.7% and Reserve Fund -19.6%, benchmark -19.1%). This underperformance was largely due to the troubles in the corporate bond sector.

Risk Management

The Trustees review annually the major risks to which ZSL is exposed. The review considers all risks to which ZSL is exposed and how those risks are managed; this includes operational and financial risks together with major external influences and events outside of the control of ZSL, specifically adverse weather conditions and epidemics such as Foot and Mouth Disease and Avian Influenza. The Trustees are generally satisfied that proper systems, including risks assessment procedures, health and safety policies and insurances are in place and that policies are in place to recognise and mitigate exposure to other major risks. The procedures established by the Trustees allow for an ongoing assessment of risks and in addition limited internal audit coverage has been put in place.

The Financial Statements and Trustees' Responsibilities

The Society's financial statements have been prepared in accordance with the Statement of Recommended Practice (SORP) 'Accounting and Reporting by Charities' issued in 2005 and with applicable accounting standards in the United Kingdom.

Charity law requires the Trustees to prepare financial statements for each financial year, which give a true and fair view of the group's financial activities during the year and the charity's and group's financial position at the end of the year. In preparing the financial statements giving a true and fair view, the Trustees have followed best practice and:

- selected suitable accounting policies and applied them consistently;
- made judgements and estimates that are reasonable and prudent;
- confirmed that applicable United Kingdom accounting standards and statements of recommended practice have been followed, subject to any departures disclosed and explained in the financial statements;
- prepared the financial statements on the going concern basis as it is considered appropriate to presume that the charity will continue in operation.

The Trustees are responsible for keeping accounting records which disclose with reasonable accuracy the financial position of the charity and group which enable them to ensure that the financial statements comply with applicable law. They are responsible for safeguarding the assets of the charity and group hence for taking reasonable steps for the prevention and detection of fraud and other irregularities. They are also responsible for the maintenance and integrity of the corporate and financial information on the website. Legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Auditors

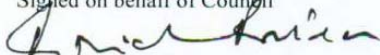
Baker Tilly UK Audit LLP were appointed auditors to fill a casual vacancy following the resignation of Ernst & Young LLP. A resolution to reappoint Baker Tilly UK Audit LLP as auditors will be put to the members at the Annual General Meeting.

Reference and Administrative Information

<i>Principal address:</i>	Regent's Park London NW1 4RY	<i>Principal Bankers:</i>	Royal Bank of Scotland London Drummonds Branch 49 Charing Cross London SW1A 2DX
<i>Also at:</i>	Whipsnade Wild Animal Park Dunstable Bedfordshire LU6 2LF	<i>Auditors:</i>	Baker Tilly UK Audit LLP 1st Floor, 46 Clarendon Road Watford, Herts. WD17 1JJ
<i>Lawyers:</i>	Hempsons Solicitors 40 Villiers Street London WC2N 6NJ	<i>Investment Advisors:</i>	Newton Investment Management Limited 160 Queen Victoria Street London EC4V 4LA
<i>Internal audit:</i>	Oakwell BDI 67A Eastwick Drive Great Bookham Surrey KT23 3PU		

Approved by Council on 21 April 2009

Signed on behalf of Council



Professor Sir Patrick Bateson

President

Independent Auditor's Report to the Trustees of the Zoological Society of London

We have audited the financial statements on pages 31 to 53.

This report is made solely to the charity's Trustees as a body, in accordance with the Charities Act 1993. Our audit work has been undertaken so that we might state to the charity's Trustees those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charity and the charity's Trustees as a body, for our audit work, for this report, or for the opinions we have formed.

Respective responsibilities of Trustees and auditors

The Trustees' responsibilities for preparing the Annual Report and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice) are set out in the Statement of Trustees' Responsibilities.

We have been appointed as auditors under section 43 of the Charities Act 1993 and report in accordance with regulations made under section 44 of that Act. Our responsibility is to audit the financial statements in accordance with relevant legal and regulatory requirements and International Standards on Auditing (UK and Ireland).

We report to you our opinion as to whether the financial statements give a true and fair view and are properly prepared in accordance with the Charities Act 1993. We also report to you if, in our opinion, the Annual Report is not consistent with the financial statements, if the charity has not kept proper accounting records, or if we have not received all the information and explanations we require for our audit.

We read other information contained in the Annual Report, and consider whether it is consistent with the audited financial statements. This other information comprises only the Trustees' Report. We consider the implications for our report if we become aware of any apparent misstatements or material inconsistencies with the financial statements. Our responsibilities do not extend to any other information.

Independent Auditor's Report to the Trustees of the Zoological Society of London

Basis of audit opinion

We conducted our audit in accordance with International Standards on Auditing (UK and Ireland) issued by the Auditing Practices Board. An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures in the financial statements. It also includes an assessment of the significant estimates and judgments made by the Trustees in the preparation of the financial statements, and of whether the accounting policies are appropriate to the charity's circumstances, consistently applied and adequately disclosed.

We planned and performed our audit so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or other irregularity or error. In forming our opinion we also evaluated the overall adequacy of the presentation of information in the financial statements.

Opinion

In our opinion the financial statements give a true and fair view, in accordance with United Kingdom Generally Accepted Accounting Practice of the state of the charity's and its subsidiaries' affairs as at 31 December 2008 and of their incoming resources and application of resources in the year then ended and have been properly prepared in accordance with the Charities Act 1993.

Baker Tilly UK Audit LLP
BAKER TILLY UK AUDIT LLP
Registered Auditor
Chartered Accountants
1st Floor, 46 Clarendon Road
Watford, Herts, WD17 1JJ
27 April 2009

Consolidated Statement of Financial Activities

For the year ended 31 December 2008

	Notes	Unrestricted		Restricted		2008	2007
		General	Designated	Endowment	Other	Total	Total
		£000	£000	£000	£000	£000	£000
Incoming resources							
Incoming resources from generated funds:							
Voluntary income	3	7	42	–	2,678	2,727	2,775
Activities for generating funds:							
Subsidiaries' trading turnover	4	9,763	–	–	–	9,763	10,009
Other		26	–	–	–	26	12
Interest and investment income	5	734	2	–	106	842	1,043
Incoming resources from charitable activities:							
Animal collections	2	19,962	37	–	54	20,053	21,080
Science and research		549	–	–	4,034	4,583	4,170
Conservation programmes		81	–	–	1,672	1,753	1,018
Other incoming resources - Biota	10	539	–	–	–	539	–
Total incoming resources		31,661	81	–	8,544	40,286	40,107
Resources expended							
Cost of generating funds:							
Costs of generating voluntary income		604	–	–	–	604	591
Fundraising trading							
Subsidiaries' cost of goods sold and other costs	4	7,093	–	–	–	7,093	6,941
Other		958	–	–	–	958	865
Investment management costs		11	–	–	17	28	31
Charitable activities:							
Animal collections		22,148	–	–	72	22,220	21,237
Science and research		1,256	–	–	4,008	5,264	4,710
Conservation programmes		1,007	–	–	1,639	2,646	2,062
Governance costs		151	–	–	8	159	166
Other resources expended - Biota	10	515	–	–	100	615	–
Total resources expended	6a	33,743	–	–	5,844	39,587	36,603
Net incoming resources before transfers							
		(2,082)	81	–	2,700	699	3,504
Transfers between funds	15	(30,051)	31,808	–	(1,757)	–	–
Net incoming resources before other recognised losses							
	7	(32,133)	31,889	–	943	699	3,504
Other recognised losses							
Loss on investments	10	(291)	–	(234)	(447)	(972)	(8)
Actuarial loss on pension scheme	16	(4,100)	–	–	–	(4,100)	–
Net movement in funds		(36,524)	31,889	(234)	496	(4,373)	3,496
Reconciliation of funds							
Total funds balance brought forward		41,073	3,707	1,220	4,167	50,167	46,671
Total funds balance carried forward		4,549	35,596	986	4,663	45,794	50,167

The above results are all in respect of continuing operations.

No statement of total recognised gains and losses has been prepared as all such gains and losses have been included above.

The notes on pages 34 to 53 form part of these financial statements.

Consolidated and Charity Balance Sheets

As at 31 December 2008

		2008	<i>Group</i> 2007	2008	<i>Charity</i> 2007
	<i>Notes</i>	<i>£000</i>	<i>£000</i>	<i>£000</i>	<i>£000</i>
Fixed assets					
Tangible assets	9	35,573	32,294	35,573	32,294
Investments	10	2,862	3,902	4,523	5,563
		<u>38,435</u>	<u>36,196</u>	<u>40,096</u>	<u>37,857</u>
Current assets					
Stocks	11	571	485	159	147
Debtors	12	2,933	3,492	3,527	3,625
Cash at bank and in hand		8,894	11,365	7,540	10,118
		<u>12,398</u>	<u>15,342</u>	<u>11,226</u>	<u>13,890</u>
Creditors: amounts falling due within one year	13	(4,629)	(4,697)	(5,086)	(4,982)
Net current assets		<u>7,769</u>	<u>10,645</u>	<u>6,140</u>	<u>8,908</u>
Total assets less current liabilities		46,204	46,841	46,236	46,765
Creditors: amounts falling due after more than one year	14	(10)	(74)	(10)	(74)
Net assets excluding pension scheme (liability)/asset		46,194	46,767	46,226	46,691
Defined benefit pension scheme (liability)/asset	16	(400)	3,400	(400)	3,400
Net assets		<u>45,794</u>	<u>50,167</u>	<u>45,826</u>	<u>50,091</u>
Funds					
Unrestricted – General		4,949	37,673	4,981	37,697
– Designated		35,596	3,707	35,596	3,707
Unrestricted funds excluding pension (liability)/asset		<u>40,545</u>	<u>41,380</u>	<u>40,577</u>	<u>41,404</u>
Unrestricted - Pension reserve		(400)	3,400	(400)	3,400
Total unrestricted funds		<u>40,145</u>	<u>44,780</u>	<u>40,177</u>	<u>44,804</u>
Restricted – Endowments		986	1,220	986	1,220
– Other		4,663	4,167	4,663	4,067
Total funds	15	<u>45,794</u>	<u>50,167</u>	<u>45,826</u>	<u>50,091</u>

Approved and authorised for issue by Council on 21 April 2009


Paul Rutteman, FCA
Treasurer

Professor Sir Patrick Bateson
President

The notes on pages 34 to 53 form part of these financial statements.

Consolidated Cash Flow Statement

For the year ended 31 December 2008

	<i>Notes</i>	<i>2008</i> <i>£000</i>	<i>2007</i> <i>£000</i>
Net cash inflow from operating activities	19a	3,168	4,421
Returns on investments and servicing of finance			
Interest received		492	697
Investment income		176	157
Net cash inflow from returns on investments and servicing of finance		668	854
Capital expenditure and financial investment			
Purchase of tangible fixed assets		(6,376)	(7,850)
Purchase of fixed asset investments		(261)	(397)
Sale of tangible fixed assets		1	12
Sale of fixed asset investments		329	494
Net cash outflow from capital expenditure and financial investment		(6,307)	(7,741)
Decrease in cash		(2,471)	(2,466)

Reconciliation of net cash flow to movement in net cash resources

		<i>2008</i> <i>£000</i>	<i>2007</i> <i>£000</i>
Change in net cash resources resulting from cash flows		(2,471)	(2,466)
Net cash resources at 1 January		11,365	13,831
Net cash resources at 31 December	19b	8,894	11,365

The notes on pages 34 to 53 form part of these financial statements.

Notes to the Financial Statements

At 31 December 2008

1. Accounting policies

Accounting convention and basis of preparation

The financial statements are prepared under the historical cost convention, modified to include the revaluation of investments, and in accordance with the Charities Act (1993) and applicable accounting standards in the United Kingdom (UK GAAP) including the Statement of Recommended Practice (SORP) "Accounting and Reporting by Charities", issued in 2005.

Consolidation

The financial statements consolidate on a line-by-line basis the results and the assets and liabilities of the Society and its wholly owned subsidiaries Zoo Operations Limited, Zoo Enterprises Limited, Zoo Restaurants Limited, ZSL (Web of Life) Limited and Whipsnade Wild Animal Park Limited as well as the Zoological Society of London Development Trust and Biota for both of which the Council appoints the Trustees. Zoo Restaurants Limited remained dormant.

Group Statement of Financial Activities

The Group Statement of Financial Activities represents the results of both the charitable and non-charitable activities of the Society. A separate Statement of Financial Activities for the charity alone is not produced as permitted by paragraph 397 of the SORP. The results for the activities carried out by the Society's subsidiaries are set out in note 4 in respect of Catering and Shops and in note 10 in respect of other activities.

Funds

The Society maintains a number of internal funds which include restricted and unrestricted funds:

- (i) Unrestricted – General Fund: The General Fund is the free fund of the Society.
- (ii) Unrestricted – Designated Funds: These funds are derived from donations, grants, bequests and other resources set aside to be used in accordance with the resolutions passed by the Council of the Society. Both the capital and income may be spent. Until expended, the funds are invested in stocks and shares and bank deposits. Designated funds are as follows:

Development fund – This fund represented resources set aside to support non-routine Society activities and was released in the year.

Library fund – This fund represented resources set aside to support the activities of the Society library and was released in the year.

Students' awards fund – This fund represents resources set aside to meet the cost of an annual prize for best talk, awarded annually at the Institute of Zoology student conference and to fund awards to the Institute of Zoology registered students for travel and subsistence in connection with their research project. This fund is expected to be fully utilised within the next ten years.

Tangible fixed assets fund – This fund represents those resources that have been used to acquire tangible fixed assets. The value of this fund at the year end represents the net book value of tangible fixed assets.

- (iii) Restricted – Endowment Funds: These funds are derived from bequests to the Society and comprise investments, the income from which, being unrestricted, may be used to support Society activities.
- (iv) Restricted – Other Funds: These funds are as follows:

Scientific fund – This fund represents resources for the "advancement of zoology and animal physiology".

Notes to the Financial Statements

At 31 December 2008

1. Accounting policies (continued)

Funds (continued)

Library support fund – the fund represents the resources given for the activities of the library.

HEFCE – this fund represents grants received from HEFCE and similar income to support the core IoZ science and research activities.

Other funds – These funds are derived from donations, grants and bequests to be used in accordance with the wishes of the donor.

Incoming resources

In accordance with the SORP, all incoming resources, including gift aid on admissions, becoming receivable by the Society during the year are recognised in the Statement of Financial Activities, regardless of their source or of the purpose to which they are to be put or have been put. The one exception to this relates to membership income and similar income which is deferred to the extent that it relates to a service to be provided in the following financial year.

Where income is received for a specific purpose, the income is included in Restricted Funds.

Income from grants is recognised when entitlement is assured and when the amount can be valued with reasonable certainty.

Legacies are recognised when the Society is advised by the personal representative of an estate that payment will be made or assets transferred and the amount involved can be quantified.

Donated services and the estimated value of volunteer time are not recognised in the Statement of Financial Activities but are disclosed in the Trustees' report where relevant.

Resources expended

Expenditure is recognised when a liability is incurred.

Expenditure is allocated to categories in accordance with the main activity of the staff concerned or the substance of the costs incurred. Resources expended include the costs of generating funds and charitable expenditure including support, management and administration costs.

Governance costs include those expenses incurred in the governance of the Society's assets and are primarily associated with constitutional and statutory requirements and include an appropriate proportion of senior management time.

Support costs are those costs incurred in support of expenditure on the objectives of the Society and are allocated to the activities set out in note 6a on the basis set out in note 6b.

VAT

Admissions income is treated as VAT exempt and accordingly, as a partially exempt body, ZSL may not recover all VAT paid, with the exception of VAT incurred in connection with the catering and retail operations which operate through subsidiary companies. Catering and retail income is stated excluding VAT.

Fixed assets and depreciation

Fixed assets acquired by purchase or gift are shown at cost or valuation and are depreciated (with the exception of freehold land and assets under construction which are not depreciated) on a straight line basis at rates appropriate to write off the cost over their expected useful lives. Freehold buildings are depreciated over 5 to 50 years; leasehold buildings from 3 years to the shorter of the lease term, and 50 years; plant and equipment 5 to 15 years; and motor vehicles 5 years.

Notes to the Financial Statements

At 31 December 2008

1. Accounting policies (continued)

Fixed assets and depreciation (continued)

Assets under construction consist of expenditure incurred in respect of tangible assets in the course of their construction and installation. Transfers are made to the relevant fixed assets category as and when the assets are available for use.

The carrying values of tangible fixed assets are reviewed for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. Tangible fixed assets with a cost below £2,000 are charged to resources expended and are not capitalised.

Foreign currencies

Transactions in foreign currencies are recognised at the rate of exchange at the date of the transaction. Any exchange differences are recognised through the Statement of Financial Activities.

Investments

Listed investments are included in the balance sheet at market value with gains or losses recognised in the statement of financial activities.

Stocks

Stocks are stated at the lower of direct cost and net realisable value.

Animals

The animals are generally acquired by the Society from other zoological organisations at zero cost and a realistic valuation cannot be placed thereon.

Library

The contents of the library were acquired by donation or bequest. The records are held for historical and education reasons and not as an asset for realisation at a later date. Significant costs would be incurred in determining a value for these assets which would not be commensurate with the additional benefit derived by users of the financial statements. These are therefore excluded from the balance sheet as they were acquired for nil cost and have not been valued subsequently for financial reporting purposes.

Advertising costs

Costs incurred in relation to advertising are charged to the statement of financial activities at the time the advertisements appear in the media or are otherwise made public. Amounts invoiced but not yet taken to the statement of financial activities are included in prepayments and accrued income.

Pension costs

The Society participates in various defined benefit and defined contribution pension schemes.

Defined Benefit Scheme

The cost of providing benefits under the defined benefit plan is determined using the projected unit method, which attributes entitlement to benefits in the current period (to determine current service cost) and to the current and prior periods (to determine the present value of defined benefit obligations) and is based on actuarial advice. Past service costs are recognised in the statement of financial activities on a straight-line basis over the vesting period or immediately if the benefits have vested. When a settlement or a curtailment occurs the charge in the present value of the scheme liabilities and the fair value of the plan assets reflects the gain or loss which is recognised in the statement of financial activities. Losses are measured at the date that the Society becomes demonstrably committed to the transaction and gains when all parties whose consent is required are irrecoverably committed to the transaction.

The interest element of the defined benefit cost represents the change in present value of scheme obligations relating from the passage of time, and is determined by applying the discount rate to the

Notes to the Financial Statements

At 31 December 2008

1. Accounting policies (continued)

Pension costs (continued)

opening present value of the benefit obligation, taking into account material changes in the obligation during the year. The expected return on plan assets is based on an assessment made at the beginning of the year of long-term market returns on scheme assets, adjusted for the effect on the fair value of plan assets of contributions received and benefits paid during the year. The difference between the expected return on plan assets and the interest costs is recognised in the statement of financial activities as pension finance income.

Actuarial gains and losses are recognised in full in the statement of financial activities in the period in which they occur.

The defined benefit pension asset or liability in the balance sheet comprises the present value of the defined benefit obligation (using a discount rate based on corporate bonds that have been rated at AA or equivalent status), less any past service cost not yet recognised and less the fair-value of plan assets out of which the obligations are to be settled directly. Fair value is based on market price information and in the case of quoted securities is the published mid-market price. The value of the net pension benefit asset is limited to the amount that may be recovered either through reduced contributions or agreed refunds from the scheme.

Defined Contribution Scheme

Contributions to defined contribution schemes are recognised in the Statement of Financial Activities in the period in which they become payable.

Accounting policies have been reviewed in accordance with FRS 18 “Accounting policies”. The Pension costs policy has been updated following the adoption of the amendments to FRS 17 “Retirement benefits” dated December 2006. The main change in FRS 17 is that for quoted securities the current bid price, rather than the mid-market value, is taken as fair value. The implementation of this standard has not had a material impact on the charity’s and the group’s result or assets and liabilities, but has resulted in amended disclosures which are set out at note 16.

Leasing commitments

Rentals payable under operating leases are charged to the Consolidated Statement of Financial Activities on a straight line basis over the lease term.

2. Incoming resources from charitable activities

Incoming resources from charitable activities include grants of £5,056,000 (2007 – £4,345,000) which comprise the following:

	2008	2007
	£000	£000
Higher Education Funding Council for England (HEFCE)	2,064	2,010
DEFRA (Darwin Initiative)	626	510
Other grants	2,366	1,825
	<u>5,056</u>	<u>4,345</u>

3. Voluntary income

Voluntary income includes gifts, legacies and donations including those given at the zoo gates from visitors.

Notes to the Financial Statements

At 31 December 2008

4. Income from subsidiaries' trading activities

Merchandising and catering are undertaken by the Society's wholly owned subsidiary companies, Zoo Enterprises Limited and Whipsnade Wild Animal Park Limited. Net profits are donated to the Society annually.

The turnover and net contribution to the Society from catering and shops in Zoo Enterprises Limited (ZEL) and Whipsnade Wild Animal Park Limited (WWAPL) were as follows:

			2008		2007	
	ZEL	WWAPL	Total	ZEL	WWAPL	Total
	£000	£000	£000	£000	£000	£000
Turnover:						
Catering	4,951	1,646	6,597	5,046	1,703	6,749
Shops	2,272	894	3,166	2,343	917	3,260
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Cost of goods sold	7,223	2,540	9,763	7,389	2,620	10,009
	(3,239)	(790)	(4,029)	(3,465)	(832)	(4,297)
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Catering and shops (net)	3,984	1,750	5,734	3,924	1,788	5,712
Other operating costs	(1,989)	(1,075)	(3,064)	(1,660)	(984)	(2,644)
Interest receivable	63	-	63	87	-	87
Interest receivable/(payable)	(11)	11	-	(12)	12	-
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Net profit for the year before donation	2,047	686	2,733	2,339	816	3,155
Gift aid donation to the Society	(2,047)	(686)	(2,733)	(2,339)	(816)	(3,155)
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Retained in subsidiary companies	-	-	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>

Catering and Shops turnover at London Zoo is generated by Zoo Enterprises Limited and at Whipsnade Zoo are operated by Whipsnade Wild Animal park Limited. Catering and shops turnover of £9,763,000 (2007 – £10,009,000) is included in the Group Statement of Financial activities within subsidiaries' trading turnover. Cost of goods sold and other operating costs of £7,093,000 (2007 – £6,941,000) are included within fundraising trading. Interest receivable of £63,000 (2007 – £87,000) is included within interest and investment income.

Notes to the Financial Statements

At 31 December 2008

5. Interest and investment income

	2008 £000	2007 £000
Cash investments	473	688
Fixed interest (UK)	47	45
Fixed interest (overseas)	8	8
Other (UK)	114	102
Pension finance income	200	200
	<u>842</u>	<u>1,043</u>

6a. Group analysis of total resources expended

	<i>Staff</i> <i>costs</i> £000	<i>Other</i> <i>direct</i> <i>costs</i> £000	<i>Support</i> <i>costs</i> £000	<i>Total</i> 2008 £000	<i>Total</i> 2007 £000
Charitable activities					
Animal collections	9,934	9,960	2,326	22,220	21,237
Science and research	2,455	2,110	699	5,264	4,710
Conservation programmes	868	1,451	327	2,646	2,062
	<u>13,257</u>	<u>13,521</u>	<u>3,352</u>	<u>30,130</u>	<u>28,009</u>
Costs of generating funds					
Costs of generating voluntary income	364	132	108	604	591
Fundraising trading	–	344	614	958	865
Investment management costs	–	28	–	28	31
	<u>364</u>	<u>504</u>	<u>722</u>	<u>1,590</u>	<u>1,487</u>
Subsidiaries' costs of goods sold and other costs	2,514	4,579	–	7,093	6,941
Governance costs	–	122	37	159	166
Other resources expended – Biota	–	615	–	615	–
Total resources expended for Group in 2008	<u>16,135</u>	<u>19,341</u>	<u>4,111</u>	<u>39,587</u>	
<i>Total resources expended for Group in 2007</i>	<u>14,730</u>	<u>18,283</u>	<u>3,590</u>		<u>36,603</u>

Notes to the Financial Statements

At 31 December 2008

6b. Analysis of support costs

	2008	2007
	£000	£000
Staff costs	2,019	1,862
Other costs	2,092	1,728
	<u>4,111</u>	<u>3,590</u>

Support costs consist of Finance, Information Technology, Human Resources, Press Office, Reception and Switchboard, and Central Management services. These have been allocated to the activities in note 6a as follows:

Finance: on volume of transactions processed in year

Human Resources / Reception and Switchboard: on Head Count

Information Technology: on the number of PC's and electronic tills

Press Office: on time apportionment

Central Management services: on total expenditure by activity.

7. Net incoming resources before other recognised gains

	2008	2007
	£000	£000
Net incoming resources before other recognised gains is stated after charging/(crediting) the following items:		
Auditors' remuneration – audit services – charged by Baker Tilly UK Audit LLP	74	–
– audit services – charged by Ernst & Young LLP	–	75
– non audit services – charged by Ernst & Young LLP	29	21
Depreciation of fixed assets	3,097	2,803
(Profit)/Loss on disposal of tangible fixed assets	(1)	83
Operating lease rentals in respect of plant and equipment and motor vehicles	144	136
Trustees' expenses	9	10
	<u> </u>	<u> </u>

Trustees' expenses consist mainly of the reimbursement of travel expenses. In the current year these expenses relate to 10 (2007 – 10) Trustees who served as council members during the year. Trustees receive no remuneration for their services.

The Society pays the insurance premiums on behalf of the Trustees in respect of professional indemnity insurance. The premium paid is incorporated with the general professional liability premiums and so is not separately disclosable.

There are no other reportable transactions with related parties.

The auditors' remuneration for non audit services is in respect of fees in connection with general VAT advice and agreed procedures on specific grants (2007 – relates to fees in connection with general VAT advice).

Notes to the Financial Statements

At 31 December 2008

8. Staff costs

	2008 £000	2007 £000
Salaries and wages	15,384	14,044
Social security costs	1,457	1,319
Pension cost – ZSL 1988 Pension Scheme	1,100	1,000
Pension cost – Other Schemes	213	229
	<u>18,154</u>	<u>16,592</u>

In addition the cost of temporary staff in the year was £250,000 (2007 – £251,000).

The average full time equivalent number of employees during the year was made up as follows:

	2008 No.	2007 No.
Animal collections	371	354
Science and research	61	58
Conservation programmes	37	29
Cost of generating funds – voluntary income	11	9
Cost of generating funds – voluntary trading	80	76
Support costs	57	50
	<u>617</u>	<u>576</u>

The number of employees earning in excess of £60,000 per annum (higher paid employees) exclusive of pension contributions were:

Band	2008 No.	2007 No.
£ 60,001 – £ 70,000	5	1
£ 70,001 – £ 80,000	3	1
£ 80,001 – £ 90,000	1	1
£ 90,001 – £ 100,000	1	–
£130,001 – £140,000	–	1
£140,001 - £150,000	1	–

Retirement benefits are accruing under defined benefit schemes for 4 (2007 – 4) higher paid employees. In addition, contributions of £19,500 (2007 – £23,000) in respect of defined contribution schemes were incurred for 4 (2007 – 4) higher paid employees.

Notes to the Financial Statements

At 31 December 2008

9. Tangible fixed assets

Group and Charity

	<i>Freehold land and buildings £000</i>	<i>Buildings on leased land £000</i>	<i>Assets under construction £000</i>	<i>Plant and equipment £000</i>	<i>Motor vehicles £000</i>	<i>Total £000</i>
Cost:						
At 31 December 2007	11,687	33,117	4,221	6,576	639	56,240
Purchased during the year	2,241	1,219	2,428	428	60	6,376
Transfer of Assets under Construction	2,395	3,121	(5,516)	–	–	–
Disposals	–	–	–	(356)	(13)	(369)
At 31 December 2008	16,323	37,457	1,133	6,648	686	62,247
Depreciation:						
At 31 December 2007	6,199	12,414	–	4,858	475	23,946
Provided during the year	744	1,729	–	562	62	3,097
Disposals	–	–	–	(356)	(13)	(369)
At 31 December 2008	6,943	14,143	–	5,064	524	26,674
Net book value:						
At 31 December 2008	9,380	23,314	1,133	1,584	162	35,573
At 31 December 2007	5,488	20,703	4,221	1,718	164	32,294

All tangible fixed assets are held by the Zoological Society of London. Substantially all are used for the charitable purposes of the Society.

The land at Whippsnade was purchased by the Society many years ago at negligible cost. In the absence of a formal valuation, it is not considered practicable to quantify the market value of the land at Whippsnade.

The Trustees are not aware of any other material difference between the carrying value and the market value of land and buildings.

Notes to the Financial Statements

At 31 December 2008

10. Investments

Group	Value at	Additions	Proceeds on	Net gains/(losses)		Value at
	31 December			at cost	disposals	Realised
	2007	£000	£000	£000	£000	2008
	£000	£000	£000	£000	£000	£000
Listed investments:						
at market value						
– Fixed interest (UK)	832	76	(58)	1	(189)	662
– Fixed interest (Overseas)	94	–	–	–	4	98
– Other (UK)	2,973	185	(271)	(15)	(770)	2,102
– Other (Overseas)	3	–	–	–	(3)	–
	<u>3,902</u>	<u>261</u>	<u>(329)</u>	<u>(14)</u>	<u>(958)</u>	<u>2,862</u>
Charity						
Unlisted investments:						
at net asset value						
– Investment in ZSL (Web of Life) Limited	–	–	–	–	–	–
– Investment in Zoo Operations Limited	1,661	–	–	–	–	1,661
	<u>5,563</u>	<u>261</u>	<u>(329)</u>	<u>(14)</u>	<u>(958)</u>	<u>4,523</u>
Listed investments historical cost	<u>2,780</u>					<u>2,698</u>

The unlisted investment in the wholly owned subsidiary, Zoo Operations Limited is carried in the Charity balance sheet at its net asset value and has remained as the investment holding company for its wholly owned subsidiaries Zoo Enterprises Limited, Whipsnade Wild Animal Park Limited and Zoo Restaurants Limited.

Zoo Restaurants Limited has remained dormant in the year whilst Zoo Enterprises Limited and Whipsnade Wild Animal Park Limited undertake the merchandising and catering operations at London Zoo and Whipsnade Zoo respectively and gift aid their profits to The Zoological Society of London annually.

The unlisted investment in the wholly owned subsidiary, ZSL (Web of Life) Limited is carried at nil value as it had a net liability position at 31 December 2008 of £24,406 (2007 – £24,406) and did not trade during the year.

There is no investment in the Zoological Society of London Development Trust and Biota since neither has any share capital. The Zoological Society of London Development Trust has been virtually dormant whilst Biota has been involved with the development of an aquarium being planned for Silvertown Quays in London Docklands. Within the Consolidated Statement of Financial Activities, in respect of Biota, an amount of £539,000 is shown as other incoming resources whilst an amount of £615,000 is shown as other resources expended. The £615,000 resources expended are those incurred on the development, including design costs, of the aquarium planned for Silvertown Quays in London Docklands and a £237,000 provision for an outstanding debt due from the developers as more fully explained in the Trustees' report.

Notes to the Financial Statements

At 31 December 2008

10. Investments (continued)

The results of the individual subsidiaries are as follows:

	<i>Assets</i>	<i>Liabilities</i>	<i>Funds</i>	<i>Assets</i>	<i>Liabilities</i>	<i>Funds</i>
	<i>2008</i>	<i>2008</i>	<i>2008</i>	<i>2007</i>	<i>2007</i>	<i>2007</i>
	<i>£000</i>	<i>£000</i>	<i>£000</i>	<i>£000</i>	<i>£000</i>	<i>£000</i>
Biota	58	(208)	(150)	102	(2)	100
Zoo Operations Limited	1,661	–	1,661	1,661	–	1,661
Zoo Enterprises Limited	1,807	(1,705)	102	1,471	(1,369)	102
Whipsnade Wild Animal Park Limited	566	(209)	357	693	(336)	357
ZSL (Web of Life) Limited	7	(31)	(24)	7	(31)	(24)
	<u>4,099</u>	<u>(2,153)</u>	<u>1,946</u>	<u>3,934</u>	<u>(1,738)</u>	<u>2,196</u>

The Assets, Liabilities and Funds for The Zoological Society of London Development Trust and Zoo Restaurants Limited at 31 December 2008 are not material and have remained unchanged from 31 December 2007.

Biota had net outgoing resources of £249,955 (2007 - £100,098 net incoming resources) whilst the other subsidiaries achieved a nil result (2007 - £Nil).

11. Stocks

	<i>2008</i>	<i>Group</i>	<i>2008</i>	<i>Charity</i>
	<i>£000</i>	<i>2007</i>	<i>2008</i>	<i>2007</i>
	<i>£000</i>	<i>£000</i>	<i>£000</i>	<i>£000</i>
Raw materials	158	146	158	146
Finished goods and goods for resale	413	339	1	1
	<u>571</u>	<u>485</u>	<u>159</u>	<u>147</u>

12. Debtors

	<i>2008</i>	<i>Group</i>	<i>2008</i>	<i>Charity</i>
	<i>£000</i>	<i>2007</i>	<i>2008</i>	<i>2007</i>
	<i>£000</i>	<i>£000</i>	<i>£000</i>	<i>£000</i>
Trade debtors	679	695	323	295
Amounts owed by group companies	–	–	911	557
Taxation and social security	–	–	73	–
Other debtors	163	144	163	144
Accrued interest and investment income	51	77	51	77
Prepayments and accrued income	2,040	2,576	2,006	2,552
	<u>2,933</u>	<u>3,492</u>	<u>3,527</u>	<u>3,625</u>

Notes to the Financial Statements

At 31 December 2008

13. Creditors: amounts falling due within one year

	<i>2008</i>	<i>Group</i>	<i>2008</i>	<i>Charity</i>
	<i>£000</i>	<i>£000</i>	<i>£000</i>	<i>£000</i>
Trade creditors	1,528	1,722	1,043	1,266
Amounts owed to group companies	–	–	1,320	1,303
Taxation and social security	564	723	395	446
Accruals and deferred income	2,347	2,069	2,149	1,792
Other creditors	190	183	179	175
	<u>4,629</u>	<u>4,697</u>	<u>5,086</u>	<u>4,982</u>

The movement in deferred income included within creditors falling due within one year is analysed below:

	<i>2008</i>	<i>Group</i>	<i>2008</i>	<i>Charity</i>
	<i>£000</i>	<i>£000</i>	<i>£000</i>	<i>£000</i>
Deferred income at 1 January	765	734	765	734
Amounts released from previous years	(765)	(734)	(765)	(734)
Incoming resources deferred	1,536	765	1,536	765
Deferred income at 31 December	<u>1,536</u>	<u>765</u>	<u>1,536</u>	<u>765</u>

14. Creditors: amounts falling due after more than one year

	<i>2008</i>	<i>Group</i>	<i>2008</i>	<i>Charity</i>
	<i>£000</i>	<i>£000</i>	<i>£000</i>	<i>£000</i>
Accruals of retention fees in respect of fixed asset additions	10	74	10	74
	<u>10</u>	<u>74</u>	<u>10</u>	<u>74</u>

Notes to the Financial Statements

At 31 December 2008

15. Funds

A full description of the individual fund categories is set out in note 1.

(a) Movement of funds for the year – Group

	<i>Balance at 31 December 2007 £000</i>	<i>Incoming resources £000</i>	<i>Resources expended £000</i>	<i>Transfers £000</i>	<i>Gains & (losses) 31 December 2008 £000</i>	<i>Balance at 31 December 2008 £000</i>
<i>Unrestricted funds</i>						
General fund *	41,073	31,661	(33,743)	(30,051)	(4,391)	4,549
Designated funds:						
Development fund	3,245	78	–	(3,323)	–	–
Library fund	439	3	–	(442)	–	–
Student awards fund	23	–	–	–	–	23
Tangible fixed asset fund	–	–	–	35,573	–	35,573
	<u>3,707</u>	<u>81</u>	<u>–</u>	<u>31,808</u>	<u>–</u>	<u>35,596</u>
<i>Restricted funds</i>						
Endowment funds:						
De Arroyave fund	1,138	–	–	–	(221)	917
Fantham bequest	78	–	–	–	(13)	65
Davis fund	4	–	–	–	–	4
	<u>1,220</u>	<u>–</u>	<u>–</u>	<u>–</u>	<u>(234)</u>	<u>986</u>
Other funds:						
Scientific fund	2,138	96	(17)	(80)	(447)	1,690
Library support fund	–	–	–	100	–	100
HEFCE fund	–	2,099	(2,099)	–	–	–
Other	2,029	6,349	(3,728)	(1,777)	–	2,873
	<u>4,167</u>	<u>8,544</u>	<u>(5,844)</u>	<u>(1,757)</u>	<u>(447)</u>	<u>4,663</u>
Total funds	<u><u>50,167</u></u>	<u><u>40,286</u></u>	<u><u>(39,587)</u></u>	<u><u>–</u></u>	<u><u>(5,072)</u></u>	<u><u>45,794</u></u>

On 12 September 2006 the Trustees' decided to apply the income each year on the Library support fund for the provision of library upkeep but to maintain the principal sum for the foreseeable future. This has been reflected in the current year transfer of £100,000 to restricted reserves. In addition a £342,000 transfer to general funds has been made from the designated library fund to reflect the historic expenditure on this fund.

The De Arroyave fund, the Fantham Bequest fund and the Davis fund are to provide income for general support of the Society's activities.

* Incorporating the unrestricted pension reserve at 31 December 2008, being a liability of £400,000 (2007 – asset of £3,400,000).

Notes to the Financial Statements

At 31 December 2008

15. Funds (continued)

(b) Movement of funds for the year – Charity

	<i>Balance at 31 December 2007 £000</i>	<i>Incoming resources £000</i>	<i>Resources expended £000</i>	<i>Transfers £000</i>	<i>Gains & (losses) £000</i>	<i>Balance at 31 December 2008 £000</i>
<i>Unrestricted funds</i>						
General fund*	41,097	24,189	(26,263)	(30,051)	(4,391)	4,581
Designated funds:						
Development fund	3,245	78	–	(3,323)	–	–
Library fund	439	3	–	(442)	–	–
Student awards fund	23	–	–	–	–	23
Tangible fixed asset fund	–	–	–	35,573	–	35,573
	<u>3,707</u>	<u>81</u>	<u>–</u>	<u>31,808</u>	<u>–</u>	<u>35,596</u>
<i>Restricted funds</i>						
Endowment funds:						
De Arroyave Fund	1,138	–	–	–	(221)	917
Fantham Bequest	78	–	–	–	(13)	65
Davis Fund	4	–	–	–	–	4
	<u>1,220</u>	<u>–</u>	<u>–</u>	<u>–</u>	<u>(234)</u>	<u>986</u>
Other funds:						
Scientific fund	2,138	96	(17)	(80)	(447)	1,690
Library support fund	–	–	–	100	–	100
HEFCE fund	–	2,099	(2,099)	–	–	–
Other	1,929	6,349	(3,628)	(1,777)	–	2,873
	<u>4,067</u>	<u>8,544</u>	<u>(5,744)</u>	<u>(1,757)</u>	<u>(447)</u>	<u>4,663</u>
Total funds	<u><u>50,091</u></u>	<u><u>32,814</u></u>	<u><u>(32,007)</u></u>	<u><u>–</u></u>	<u><u>(5,072)</u></u>	<u><u>45,826</u></u>

Incoming resources of the charity amounted to £32,814,000 (2007 – £33,166,000) and its net movement in funds amounted to £4,265,000 reduction (2007 – £3,396,000 increase).

Fund transfers of £1,857,000 were made from restricted to unrestricted funds and represented the cost of acquiring certain tangible fixed assets purchased in accordance with the restrictions upon which the Society may use such restricted funds.

Fund transfers of £35,573,000 were then made from the General fund to a designated tangible fixed asset fund to separately identify the resources that have been used to acquire tangible fixed assets. The value of this fund at the year end represents the net book value of tangible fixed assets.

The Development fund is no longer required and so has been released to the General fund by the transfer of £3,323,000.

* Incorporating the unrestricted pension reserve at 31 December 2008, being a liability of £400,000 (2007 – asset of £3,400,000).

Notes to the Financial Statements

At 31 December 2008

15. Funds (continued)

(c) Analysis of Group net assets between funds:

	<i>Tangible</i>		<i>Pension</i>	<i>Other</i>	
	<i>Assets</i>	<i>Investments</i>	<i>Scheme net</i>	<i>net assets/</i>	<i>Total</i>
	<i>£000</i>	<i>£000</i>	<i>liability</i>	<i>(liabilities)</i>	<i>£000</i>
Unrestricted funds	35,573	877	(400)	4,095	40,145
Restricted funds					
– Endowment	–	535	–	451	986
– Other	–	1,450	–	3,213	4,663
Total group net assets	35,573	2,862	(400)	7,759	45,794

16. Pension schemes

The Society participates in two main defined benefit pension schemes and two other smaller schemes (one a defined benefit scheme and one a defined contribution scheme). Employees join the appropriate scheme, depending on their employment terms. The total cost to the Society for the year ended 31 December 2008 in respect of pension contributions was £1,313,000 (31 December 2007 – £1,229,000) which have been allocated between resources expended categories in proportion to staff costs and charged to the Statement of Financial Activities as appropriate.

The two main defined benefit pension schemes are the Zoological Society 1988 Pension Scheme (ZSL 1988) which is the Society's own self-administered occupational pension scheme and the Universities Superannuation Scheme (USS) which covers employees of all UK universities. The USS scheme is contracted out of the State Second Pension (S2P) and the assets of the scheme are held in a separate fund administered by the Trustee, Universities Superannuation Scheme Limited. Because of the mutual nature of the USS scheme the Society is unable to identify its share of underlying assets and liabilities of the scheme on a consistent and reasonable basis and therefore, as required by FRS 17 "Retirement benefits", accounts for the scheme as if it were a defined contribution scheme and as a result, the amount charged to the statement of financial activities represents contributions payable to the USS scheme in respect of the accounting period.

The ZSL 1988 and USS are valued every three years by professionally qualified independent actuaries and payments to the schemes are made based on actuarial advice.

Details of the ZSL 1988 scheme at the actuarial valuation date of 30 June 2005 are:

Contracted out of State Earnings Related Pension Scheme	No
Actuarial valuation method	Attained age
Latest available completed actuarial valuation	30 June 2005
Actuarial assumptions	
– investment return	4.2%/6.7%
– salary increases	4.25%
– increase in pensions	3.0%
Market value of scheme's assets	£18.4m
Actuarial cover **	141%

Notes to the financial statements

At 31 December 2008

16. Pension schemes (continued)

**The actuarial cover represents the relationship of the market valuation of the scheme assets to the value of the benefits that had accrued to members at the valuation date, after allowing for the effect of the future increases in their earnings.

Universities Superannuation Scheme (USS)

The latest actuarial valuation of the scheme was at 31 March 2008, however, as related recommended disclosures are not yet available from the Trustee then the following information refers to the valuation at 31 March 2005 unless otherwise stated. The valuation was carried out using the projected unit method. The assumptions which have the most significant effect on the result of the valuation are those relating to the rate of return on investments (ie the valuation rate of interest), the rates of increase in salary and pensions and the assumed rates of mortality. In relation to the past service liabilities the financial assumptions were derived from market yields prevailing at the valuation date. It was assumed that the valuation rate of interest would be 4.5% per annum, salary increase would be 3.9% per annum (Plus an additional allowance for increases in salaries due to age and promotion and a further amount of £800m of liabilities to reflect recent experience) and pensions would increase by 2% per annum. In relation to future service liabilities it was assumed that the valuation rate of interest would be 6.2% per annum, including an additional investment return assumption of 1.7% per annum, salary increase would be 3.9% per annum (also plus an allowance for increases in salaries due to age and promotion) and pensions would increase by 2.9% per annum.

At the valuation date, the value of assets of the scheme was £21,740m and the value of the past service liabilities was £28,308m indicating a deficit of £6,568m. The assets therefore were sufficient to cover 77% of the benefits which had accrued to members after allowing for expected future increases in earnings.

The actuary also valued the scheme on a number of other bases at the valuation date. Using the Minimum Funding Requirement prescribed assumptions introduced by the Pensions Act 1995, the scheme was 126% funded at the valuation date; under the Pension Protection Fund regulations introduced by the Pensions Act 2004 it was 110% funded; on a buy-out basis (ie assuming the Scheme had discontinued on the valuation date the assets would have been approximately 74% of the amount necessary to secure all the USS benefits with an insurance company; and using the FRS17 formula as if USS was a single employer scheme, the actuary estimated that the funding level would have been approximately 90%.

Since 31 March the funding level of the scheme has undergone considerable volatility. The actuary has estimated that the funding level had increased to 91% at 31 March 2007 but at 31 March 2008 it had fallen back to 77%. This fluctuation in the scheme's funding level is due to the combination of the volatility of the investment returns compared to the returns allowed for in the funding assumptions and also the changing gilt yields which are used to place a value on the scheme's liabilities. These estimated funding levels are based on the funding levels at 31 March 2005, adjusted to reflect the fund's actual investment performance and changes in gilt yields (ie the valuation rate of interest). On the FRS17 basis, using an AA bond discount rate of 6% based on spot yields, the actuary estimated that the funding level at 31 March 2008 was 104%. An estimate of the funding level measured on a buy-out basis was approximately 78%.

Surpluses or deficits which arise at future valuations may impact on ZSL's future contribution commitment. USS is a "last man standing" scheme so that in the event of the insolvency of any of the participating employers in USS, the amount of any pension funding shortfall (which cannot otherwise be recovered) in respect of that employer will be spread across the remaining participant employers and reflected in the next actuarial valuation of the scheme.

The most recent formal triennial actuarial valuation was at 31 March 2008 and the next is due at 31 March 2011. The contribution rate will be reviewed as part of each valuation.

The total USS pension cost to the Society for the year ended 31 December 2008 was £191,000 (2007 – £175,000). The contribution rate payable by the Society was 14% of pensionable salaries.

Notes to the financial statements

At 31 December 2008

16. Pension schemes (continued)

Pension Disclosure under FRS17 - ZSL 1988 scheme

The Society operates a defined benefit scheme in the UK for staff. A full actuarial valuation has been carried out at 30 June 2008 (although is not yet available) and was updated to 31 December 2008 by a qualified independent actuary.

The pension expense charged in the Statement of Financial Activities makes no allowance for the actuarial gains and losses during the year. Actuarial gains and losses are recognised in the Statement of Financial Activities in the year they occur.

	<i>At year-end</i>	<i>At year-end</i>
	<i>31 December</i>	<i>31 December</i>
	<i>2008</i>	<i>2007</i>
	<i>£000</i>	<i>£000</i>
Change in benefit obligation		
Benefit obligation at beginning of year	20,000	19,100
Current service cost	1,100	1,000
Interest cost	1,100	1,000
Actuarial (gains)/losses	(1,600)	(500)
Benefits paid	(700)	(600)
Benefit obligation at end of year	<u>19,900</u>	<u>20,000</u>
Analysis of defined benefit obligation		
Plans that are wholly or partly funded	19,900	20,000
Change in plan assets		
Fair value of plan assets at the beginning of the year	23,400	22,300
Expected return on plan assets	1,300	1,200
Actuarial gains/(losses)	(5,700)	(500)
Employer contribution	1,200	1,000
Benefits paid	(700)	(600)
Fair value of plan assets at end of year	<u>19,500</u>	<u>23,400</u>
Funded status	(400)	3,400
Net amount recognised	(400)	3,400
	<i>At year-end</i>	<i>At year-end</i>
	<i>31 December</i>	<i>31 December</i>
	<i>2008</i>	<i>2007</i>
	<i>£000</i>	<i>£000</i>
Components of pension cost		
Current service cost	1,100	1,000
Interest cost	1,100	1,000
Expected return on pension scheme assets	(1,300)	(1,200)
Actuarial losses immediately recognised	4,100	–
Total pension cost recognised in Group Statement of Financial Activities	<u>5,000</u>	<u>800</u>
Cumulative amount of actuarial (losses)/gains immediately recognised	(2,500)	1,600

Notes to the financial statements

At 31 December 2008

16. Pension schemes (continued)

Pension Disclosure under FRS17 - ZSL 1988 scheme (continued)

Plan assets

The weighted – average asset allocation at the year-end was as follows:

Asset category	<i>Plan assets at</i>	
	<i>31 December</i>	<i>31 December</i>
	<i>2008</i>	<i>2007</i>
	<i>%</i>	<i>%</i>
Equities	64	67
Bonds	32	27
Property	2	2
Cash	2	4
	100	100
	100	100

To develop the assumption for the long-term rate of return on assets the Trustees considered the current level of expected returns on risk free investments (primarily government bonds), the historical level of the risk premium associated with other asset classes in which the portfolio is invested, the expectations for future returns on each asset class and the expected expenses of the Scheme. The expected return for each asset class was then weighted based on the actual asset allocation to develop the expected long-term rate of return on assets assumption for the portfolio. This resulted in the selection of the 5.7% assumption at 31 December 2008.

	<i>31 December</i>	<i>31 December</i>
	<i>2008</i>	<i>2007</i>
Actual return on plan assets	(4,400)	700

Weighted average assumptions used to determine benefit obligations at:

	<i>31 December</i>	<i>31 December</i>	<i>31 December</i>
	<i>2008</i>	<i>2007</i>	<i>2006</i>
Discount rate	5.6	5.5	5.0
Rate of compensation increase	3.7	4.9	4.5

Weighted average assumptions used to determine net pension cost for the year ended:

	<i>31 December</i>	<i>31 December</i>
	<i>2008</i>	<i>2007</i>
Discount rate	5.5	5.0
Expected rate on long-term return on plan assets	5.7	5.5
Rate of compensation increase	4.9	4.5

Weighted average life expectancy for mortality tables used to determine benefit obligations at:

	<i>31 December</i>		<i>31 December</i>	
	<i>2008</i>		<i>2007</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
Member age 65 (current life expectancy)	21.1	24.0	20.3	23.2
Member age 45 (current life expectancy at age 65)	22.2	25.0	21.4	24.3

Notes to the financial statements

At 31 December 2008

16. Pension schemes (continued)

Pension Disclosure under FRS17 - ZSL 1988 scheme (continued)

Five year history for the financial year ended on 31 December:

	2008	2007	2006	2005	2004
	£000	£000	£000	£000	£000
Benefit obligation at end of year	19,900	20,000	19,100	18,700	16,100
Fair value of plan assets at end of year	19,500	23,400	22,300	20,400	17,500
Surplus/(deficit)	(400)	3,400	3,200	1,700	1,400
Difference between actual and expected return on scheme assets:					
amount	(5,700)	(500)	700	2,100	400
percentage of scheme assets	(29)%	(2)%	3%	10%	2%
Experience gains and losses on scheme liabilities:					
amount	(200)	-	(100)	800	-
percentage of scheme liabilities	(1)%	0%	(1)%	4%	0%

Contributions

The Trustees expect to contribute £1,500,000 to the scheme in 2009.

17. Leasing commitments

	2008	2007
	£000	£000
Leases expiring:		
Within one year	7	2
Within two to five years	128	134
	<u>135</u>	<u>136</u>

The lease commitments relate to the annual amounts payable on non-cancellable operating leases in respect of plant and equipment and motor vehicles.

18. Capital commitments

The Society leases the Regent's Park site from the Department of Culture, Media and Sport. The lease was renewed in 1999 for a term of 56 years at no annual rent. As a condition of the renewed lease, the Society submitted to undertake a survey of the site in order to agree a strategy for future works. The survey was completed and initial indications gave a preliminary estimate of a maximum cost of £31m, which forms the basis for continuing discussion with the landlord of the programme of works to be undertaken in the context of the Society's cash resources at future dates. Development work has been undertaken in certain areas which reduces the estimate of costs for outstanding works to £17.3m. Further work is budgeted for in 2009.

Capital expenditure of £2.3m had been authorised but not provided at 31 December 2008 of which £1.3m had been contracted and £1m had not been contracted.

Notes to the financial statements

At 31 December 2008

19. Notes to the consolidated cash flow statement

(a) Reconciliation of net incoming resources before other recognised gains to net cash inflow from operating activities

	2008	2007
	£000	£000
Net incoming resources before other recognised gains	699	3,504
Current service cost surplus	(100)	–
Pension finance income	(200)	(200)
Interest and investment income	(642)	(843)
Depreciation of fixed assets	3,097	2,803
Loss/(Profit) on disposal of tangible fixed assets	(1)	83
Increase in stocks	(86)	(105)
Decrease/(Increase) in debtors	533	(1,247)
(Decrease)/Increase in creditors	(132)	426
	<u>3,168</u>	<u>4,421</u>
Net cash inflow from operating activities	<u>3,168</u>	<u>4,421</u>

(b) Analysis of consolidated net cash resources

	<i>1 January</i>	<i>Cash 31 December</i>	
	<i>2008</i>	<i>flow</i>	<i>2008</i>
	<i>£000</i>	<i>£000</i>	<i>£000</i>
Cash at bank and in hand	11,365	(2,471)	8,894
	<u>11,365</u>	<u>(2,471)</u>	<u>8,894</u>

20. Contingent liabilities

The Charity is joint and severally liable for all Value Added Tax (VAT) debts of the VAT group registration of which it is a part relating to the period that it has been a member of the VAT group.

21. Related parties

There were no material related party transactions in the year (2007 – none).