

A photograph of a dolphin leaping from the ocean. The dolphin is captured mid-air, its body arched and its tail fluke visible. The background is a bright blue sky with scattered white clouds. The ocean surface is dark blue with white foam from the dolphin's splash.

*Science in the Service  
of Animal Welfare*

**Universities Federation  
for Animal Welfare  
Annual Report  
2005-2006**

## The Universities Federation for Animal Welfare

The Universities Federation for Animal Welfare, founded in 1926, is an internationally recognised, independent, scientific and educational animal welfare charity concerned with promoting high standards of welfare for farm, companion, laboratory and captive wild animals, and for those animals with which we interact in the wild.

It works to improve animals' lives by:

- Promoting and supporting developments in the science and technology that underpin advances in animal welfare
- Promoting education in animal care and welfare
- Providing information, organising meetings, and publishing books, videos, articles, technical reports and the journal *Animal Welfare*
- Providing expert advice to government departments and other bodies and helping to draft and amend laws and guidelines
- Enlisting the energies of animal keepers, scientists, veterinarians, lawyers and others who care about animals

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Photographs: Robert Hubrecht, Deborah Ottway, Christine Ruschak, Chris Sherwin, The Iams Company, Debbie Tunnicliffe.

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### Letter from the Chairman

Once again this has been a busy and productive year and I would like to begin by congratulating the staff on their endeavours over the year. The report comprehensively covers the results of these endeavours which support all the objectives of UFAW but even so, I should like to pick out some highlights.



Few people would deny that rodent control is necessary but many may well feel uncomfortable about at least some of the current methods that are used. For this reason UFAW organised a workshop which took place in London in January 2006 which was attended by those actively involved in rodent control, scientists with an interest in the subject and policy makers. The workshop stimulated the organisation of a number of meetings addressing various aspects of the issue identified at the workshop which are outlined in the report.

An international symposium on 'Quality of Life: the Heart of the Matter' was initiated during the year with the collaboration of the British Veterinary Association Ethics Committee. It is to take place at The Royal Society on 13th – 14th September this year. The organisation is proceeding well and at an increasing pace. An excellent programme and speakers have been arranged.

The website has had a major overhaul and I commend it to you as well worth a visit, as is the *Animal Welfare Journal* where the current and previous issues are now available online.

Those of you who support and have an interest in the UFAW SAWI Fund, which is used specifically to promote animal welfare in Israel, should read the item on the UFAW SAWI Fund.

Finally, I would direct you to the sections on Research and on Education where you will find a wide range of subjects of interest and see how active UFAW is in these areas.

Unfortunately all the activities described in the report require funds for their achievement. Please provide the help needed to enable these important and, in most cases, unique activities to continue.

A handwritten signature in black ink that reads "Peter M Biggs". The signature is written in a cursive, slightly slanted style.

Peter M Biggs

## Chief Executive's Report



As illustrated by some of the subjects outlined in this report, despite the many impacts that the huge human population has on the welfare of other sentient animals on the planet, there is the potential for many real improvements to be made. Through championing the science-based, sympathetic but unsentimental approach, charted by UFAW's Founder, the late Major Charles Hume, UFAW continues to take a leading role in the development of animal welfare in the UK and internationally.

The Federation does this through (i) promoting the science aimed at providing better understanding of animals' needs, physical and mental, (ii) promoting high standards of animal care through disseminating information and facilitating discussion, and (iii) striving to make sure that in all of our interactions with them, animals' welfare interests are properly considered and addressed. This Annual Report provides examples of some of the UFAW team's activities in these contexts during the past year.

By the time this Annual Report goes to press it will have been 10 years since, on 12th August 1996, I took up my post at UFAW and the HSA (UFAW's sister charity the Humane Slaughter Association). How ten years have passed in what seems less than half that time is baffling. We are very fortunate to have such excellent and energetic staff at the charities, and it has been my pleasure to see the remarkable productivity of these small teams (there are only 13 staff in total for both UFAW and the HSA). I am most grateful to all the staff. The charities are very fortunate indeed also in having the governance and support of an excellent Council.

The Federation has been able to drive forward many very important initiatives for animal welfare and this is thanks to the generosity and loyalty of its supporters whose help we most gratefully acknowledge. We welcome any others who wish to join and help the Federation in its work and in developing firm foundations for further advances in animal welfare around the world.

A handwritten signature in black ink, appearing to read 'James K Kirkwood'. The signature is fluid and cursive, with a large initial 'J'.

James K Kirkwood



## UFAW Workshop on Rodent Control Methods

It is important to find a balance between the need to ensure safety from pests and the need to control them humanely. Some current methods of rodent control fall considerably short of the humane ideal of effective population control, or individual culling, without causing pain, fear or other unpleasant feelings. Around the world very large numbers of rodents are subject to control methods and so the subject is one of major animal welfare importance.

However, compared to many other animal welfare concerns, rodent control is a 'Cinderella' subject that has received relatively little attention (or investment). James Kirkwood organized a workshop meeting held in London in January 2006 to review this subject.



The purpose of the meeting, which was attended by scientists involved in this field, representatives of the pest control industry and policymakers, was to discuss whether any approaches to improvements can be identified and, if so, how these might be pursued. Future research priorities (potential new directions for humane rodent control – lethal or by preventing breeding, and the potential for improvements or refinements to existing methods) were considered, as was the need for best practice guidance about the use of current methods.

A number of meetings have been held subsequently and three avenues have been identified through which improvements could be pursued:

### Education

- to raise awareness of the need to take welfare into consideration
- to provide best practice guidance about selection of control methods from welfare and other perspectives

### Regulation

- to address an apparent lack of regulation of trap design in the UK based on assessment of humaneness
- to explore streamlining of registration, in one country,

of rodenticides registered in another

### Research

- to develop ways to encourage, promote and fund novel approaches or refinements to existing control methods

Continuing discussions include the development of best practice guidance leaflets, initially aimed at the general public, and the possibility of a research project investigating the addition of analgesics to rodenticides.

## UFAW SAWI Fund for Animal Welfare in Israel

UFAW's 'SAWI' Fund is specifically for use to promote animal welfare in Israel. This Fund was established in 2003 when the Society for Animal Welfare in Israel was brought under UFAW's wing in line with the wishes of SAWI's founder the late Miss Marguerite Silverman. The fund is used to promote activities in line with SAWI's original objectives which were:

- (a) to assist in the protection of animals in Israel by:
  - (i) encouraging and promoting education in the humane treatment of animals;
  - (ii) providing treatment for sick and injured animals;
  - (iii) providing facilities for humane destruction.
- (b) to collect funds for the purposes of the Society
- (c) to do such other lawful things as are conducive to the attainment of the Society's objects.

Following James Kirkwood's visit to Israel last year, discussions have been underway with staff of the Agriculture Department of the Hebrew University in Jerusalem about the possibility of UFAW SAWI Fund support for a major international symposium to be held in Israel on advances in animal welfare science and their ethical and practical implications. This event is in an early stage of planning but it is hoped that it may take place during 2008.

The UFAW SAWI Fund continues to support various organisations in Israel and during the year made awards to the following: Tel Aviv SPCA, Hasharon SPCA, Haifa SPCA, Israel Cat Lovers Society, Beer Sheva SPCA, Rehovot SPCA, and Jerusalem SPCA.



We would be pleased to receive applications for animal welfare science or education initiatives in Israel, particularly those aimed at dealing strategically with animal welfare problems and which may lead to major advances.

### Animal Welfare Journal

Volume 14/4 of the journal, published in November 2005, was a Special Issue dedicated to the subject of the Three Rs and marked the 50th anniversary of the start of the study by UFAW scientists William Russell and Rex Burch which led to the development of the concept of Replacement, Reduction and Refinement — now guiding the humane use of animals in research throughout the world. UFAW was delighted to include an introductory paper to the issue by Professor Russell entitled ‘The Three Rs: past, present and future’.

Now in its fifteenth year, *Animal Welfare* is now freely available online to subscribers to the print version, with access to current and previous issues and full search facility. This will further promote the aim of the journal — to stimulate advances in animal welfare through wide dissemination of the results of high quality animal welfare science and debate about related issues.

### New UFAW website

Over the last year there has been a major overhaul and development of the UFAW website ([www.ufaw.org.uk](http://www.ufaw.org.uk)), one aim of which is to make UFAW and its work, and animal welfare science generally, more accessible and interesting to a wider audience. This development will continue now that the new site is ‘live’ and your comments and suggestions will be most welcome.

### Quality of Life: the Heart of the Matter

The UFAW/BVA Ethics Committee International Symposium 13th-14th September, The Royal Society, London

Since last Autumn UFAW has been busy organising a major international symposium which will take place on September 13th –14th, 2006 at the Royal Society. Arrangements for the ‘Quality of Life’ symposium are proceeding apace.

This symposium will consider issues and approaches in assessing and promoting the quality of animals’ lives, a concern at the centre of care for companion animals. It will look at how far veterinary research and animal welfare science have helped in developing approaches and methods of addressing the difficulties encountered when making judgements about the care and treatment of animals based upon inferences about how they feel, and at associated ethical dilemmas.

An international line-up of speakers and poster contributors has been arranged, and to date over 200 leading scientists, practicing veterinarians, ethicists, animal keepers and others interested in the field have registered to attend. They will be treated to a stimulating two days of presentations addressing a wide range of themes – from the need to consider positive emotional states in animals in our treatment and care of them, ie that quality of life for animals is more than simply absence of suffering and prevention of harm, to how we can assess the acceptability of keeping cats and dogs in long-term confinement in catteries and kennels.

The symposium will also feature a reception for all delegates, hosted by the Parliamentary and Scientific Committee, at the House of Commons on the evening of 13th September.

It is intended to publish the proceedings of the symposium as a Special Issue of the journal *Animal Welfare*.

### Staff publications

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Wells DJ, Playle LC, Enser WEJ, Flecknell PA, Gardiner MA, Holland J, Howard BR, Hubrecht R, Humphreys KR, Jackson IJ, Lane N, Maconochie M, Mason G, Morton DB, Raymond R, Robinson V, Smith JA, Watt N 2006 Assessing the welfare of genetically altered mice. *Laboratory Animals*, Volume 40(2): 111-114.

The welfare of animals under human care depends upon:

- Belief in the sentience of the animals
- Understanding that this is morally important
- Having proper knowledge of the animals' needs
- Having the ability and resources to meet these needs
- Applying these beliefs, abilities and resources conscientiously

UFAW's efforts are focused largely at the third of these points — improving knowledge of animals' needs. It is now accepted widely, although it was not always so, that a broad range of species of animals are sentient — that is, that they have the capacity to experience unpleasant and pleasant feelings.

For many species, including some companion and farm animals, knowledge of environmental and psychological needs and how these needs can be recognised and met — minimising unpleasant and maximising pleasant feelings — remains less complete than is often assumed, and a great deal of both fundamental and applied research remains to be done in these areas.

UFAW's varied grant schemes to fund animal welfare science allow us to support projects ranging from small pilot studies through to high quality post-doctoral research. It has often been difficult for scientists to obtain funding in animal welfare science, but our efforts, with your generous support, have helped to educate and support a growing number of highly respected animal welfare scientists who not only carry out the necessary research but are a source of expert advice to individuals, institutions and Government.

A few UFAW-funded projects are outlined here to demonstrate the Federation's current research interests.

## Hume Animal Welfare Fellowship

UFAW's most prestigious award is the Hume Animal Welfare Fellowship. This year, the scheme was opened to applicants worldwide. One of UFAW's priorities is to encourage research aimed at developing new, more accurate, or more practical methods of welfare assessment, and so we were delighted to announce in March that it was won by Dr Johanneke van der Harst of the Utrecht University in the Netherlands. Dr van der Harst intends to further develop a new technique for assessing the welfare of group housed animals such as those on farms or in other institutions. She will be investigating whether the behaviour of animals before events can be used as a reliable indicator of welfare – the hypothesis being that animals display anticipatory behaviour when aware that they will shortly be receiving some form of positive stimulus.

## UFAW Research Training Scholarship

This scheme was initiated by UFAW in 1998 to encourage promising young scientists to achieve professional status and to fund high quality animal welfare science. Since then UFAW has awarded six of these scholarships, which have had an impressive record in terms of producing influential research papers. This year the award went to Jessica Mettam, undertaking her PhD at Liverpool University. Jessica will be investigating the capability of fish to feel pain, still a subject on which scientists disagree. The subject is an extremely topical one, as Norway recently hosted one of the first international meetings on fish welfare, and the NC3Rs and the Animal Procedures Committee have both expressed an interest in the subject.

## UFAW PHHSC

The UFAW Pharmaceutical Housing and Husbandry Steering Committee was established by UFAW in 1998 to fund research in refinement issues specific to those involved in the breeding and use of animals in the pharmaceutical research and testing industry. It also has helped to encourage animal welfare scientists to develop an interest in laboratory animal welfare, which has received rather less attention than some other areas of animal use. Short reports from the first two studentships are now available on the UFAW website, and results from one of these are being used to produce advice on the refinement of housing for laboratory rabbits. Thanks to the continuing generous support of the PHHSC members we were able to make a fourth award in 2005, to Ms Anjanette Harris who will perform her research on enrichment, stress, cognition and gender effects while at Edinburgh University. This research will address issues such as whether enrichment changes the responses of animals during certain tests, and therefore whether it is practical to provide it in these studies.



## Comparing housing systems for dairy cows

Dairy cow housing systems may not allow cattle to exhibit their natural behaviour. Cubicle systems for dairy cows have become a more frequently used type of housing system in recent years. However, the incidence of mastitis has also increased despite the fact that



cubicle systems have been thought to be a more hygienic type of housing than straw yards. UFAW has funded a study by Ms Lindsay Whistance at Moulton College to examine the behaviour of cows around elimination to determine whether housing type might impact on the cows' natural predisposition to move away from their faeces.

### Welfare of elephants in zoos

Better methods of assessing the welfare of elephants in zoos are urgently needed. It is usually best to assess welfare using a variety of measures, and some measures may be more appropriate to assess certain problems. But these measures need to be developed and validated. As an extension to a larger study, UFAW has provided additional funding to Dr Moira Harris, at the Department of Clinical Veterinary Science, Bristol University to validate faecal cortisol as a measure of welfare in Asiatic elephants, the development of a gait scoring system to help diagnosis and treatment of foot problems, and a study of stereotypic and other behaviour.

### Mortality in wild birds and the Garden Bird Health initiative (GBHi)

Co-ordinated by the Institute of Zoology, a three-year health surveillance and research programme investigating the causes of disease outbreaks in garden birds, and risk factors for their occurrence, is now underway. The programme, which also involves the collaboration of the Scottish Agricultural College, Liverpool University, the Wildlife Veterinary Investigation Centre, the British Trust for Ornithology (BTO) and the RSPB, is part of the 'Garden Bird Health initiative' (GBHi) set up by UFAW in 2003.

There has been significant growth in interest in feeding wild birds, a practice both pleasurable to humans and of benefit to the birds. In order to maximise the benefits for their health, welfare and conservation, the GBHi also set out to develop best practice guidelines for the supplementary feeding of garden birds. A booklet *Feeding Garden Birds - Best Practice Guidelines* has been produced which reviews food types and feeding practices, discusses food quantity and quality, the siting and design of feeders, and outlines some common diseases and methods to help minimise the risks of their occurrence. The research programme, including information from reports and examination of dead bird carcasses submitted by members of the public, will further inform welfare and conservation practices including supplementary feeding by the public.

The research programme, which began in April 2005, with generous support from the bird food industry\* and charitable organisations\*\*, has investigated garden bird mortality incidents caused by a range of diseases including *Salmonella*, *E.coli* and *Trichomonas* spp. infection. Finch species, particularly the greenfinch, have been found to be most commonly affected by these diseases.

A separate study, in which UFAW's Chief Executive and Scientific Director Dr James Kirkwood et al investigated an unusual cluster of mortality incidents in species of tits (family Paridae) in 1996, was recently reported in the *Veterinary Record* (Short Communications, February 11, 2006).

In this study, post-mortem examination of carcasses revealed only one organism of suspected pathogenic significance – a novel species of bacterium within the genus *Suttonella*, since named *Suttonella ornithocola* (Foster and others 2005).

The pattern of the mortality incidents would seem to indicate a relatively sudden and widespread emergence of a causal factor involving considerable adult mortality in Paridae nationally, perhaps involving wide dispersal of infectious agents with summer migrants. Such a pattern, the study also suggested, could also indicate exposure to a risk factor in food – all the birds involved were provisioned. The results of this research should alert others investigating unusual mortality in Paridae.

\*CJ WildBird Foods Ltd., Cranswick Pet Products, Gardman Ltd., Jacobi Jayne & Co.  
\*\*BTO, British Veterinary Association: Animal Welfare Foundation, RSPB and UFAW



Lack of information about, and poor understanding of, animals' needs, and inability to detect and evaluate both negative and positive aspects of welfare — pain and pleasure, are at the root of many animal welfare problems. UFAW promotes education in animal welfare science, largely at university and college level, to help address these difficulties — helping to teach those who will become the teachers in the future. Ways that UFAW does this include:

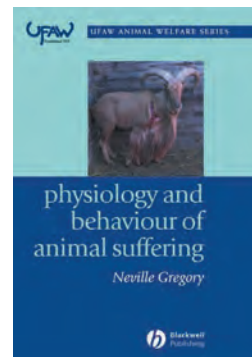
- Publication of the journal *Animal Welfare*
- Publication of key texts on animal welfare (eg *The UFAW Handbook on the Care and Management of Laboratory Animals*, and the *UFAW/Blackwell Animal Welfare Series*)
- Running workshops and symposia
- Lecturing at universities and colleges
- Running the Vacation Scholarship scheme to enable students to develop their interest in animal welfare science
- Running the Research Training Scholarship scheme to provide training in animal welfare research
- Providing financial support for other educational initiatives

Some examples of the educational work undertaken or supported by UFAW are outlined here.

## The UFAW Animal Welfare book series

We are very pleased that two further books are now in preparation for the UFAW/Blackwell Animal Welfare Series. Professor David Fraser, Head of the Animal Welfare Programme at the University of British Columbia, is writing on 'Understanding Animal Welfare' and a team of three in New Zealand — Professor David Mellor, Professor John Stafford and Dr Kate Littin — are working on a book to be titled 'The Sciences of Animal Welfare'.

The first three books in this series: Robert Young's 'Environmental Enrichment for Captive Animals' (2003), Neville Gregory's 'Physiology and Behaviour of Animal Suffering' (2004) and John Webster's 'Animal Welfare: Limping towards Eden' (2005), have been popular and all three have been reprinted.



UFAW is keen to promote understanding of the scientific approach to animal welfare. Our aim for this series is to provide high quality and topical reviews in a readable style covering a wide range of aspects of animal welfare, focusing particularly on the science, both fundamental and applied, but including also ethics, law and history. If you have an idea for a book that you would like to write for this prestigious series please let us know.

## Zoo Outreach Organisation – Promoting welfare in South East Asia

UFAW has supported the work of the Indian based Zoo Outreach Organisation (ZOO), which is concerned with linking South East Asian zoos, rescue centers, and botanic gardens with organizations that work with wildlife in the wild, for over 10 years.

A major goal of ZOO for a number of years has been to achieve wider international recognition for the activities of SAZARC, the South Asian Zoo Association for Regional Cooperation — a body which ZOO helped found and develop and which brings together representatives from zoos and field conservation groups from India, Pakistan, Nepal, Sri Lanka, Bhutan, Bangladesh and Afghanistan. SAZARC seeks to improve communication and cooperation between zoos of the region and to set up standards for animal care, organize training in zoo management, and other similar activities. UFAW is therefore happy to report that SAZARC has been granted membership of the World Association of Zoos and Aquariums.

## Support of meetings and workshops

UFAW has also given grants to support meetings and workshops, and attendance at these by key contributors, on: Wildlife rescue and rehabilitation, organized by the International Otter Survival Fund; Avian veterinary care workshop, run as part of the Vulture Recovery Programme in India and Nepal; 7th International Conference on Environmental Enrichment (Rob Young); Workshop on 'Accreditation of Laboratory Animal Welfare' run by the Brazilian Association for Laboratory Animal Science, COBEA.

## UFAW University Links Scheme

The UFAW university links scheme was launched to establish a network of UFAW representatives in UK universities and colleges that would promote animal welfare science and UFAW's objectives and activities at these establishments. Some of the activities that were supported at the 11 link institutions this year are described below:



University of Stirling – Dr Hannah Buchanan-Smith (Department of Psychology)

Dr Hannah Buchanan-Smith used the Stirling link monies to part support the Primate Society of Great Britain meeting in March 2006 on 'Primate Mentality and Wellbeing'. This meeting was attended by 85 delegates from a variety of backgrounds, zoos, laboratories and academics involved in field work.

Support was also provided to Stirling's Behaviour and Evolution Research Group seminar series, which featured, amongst others, well attended talks by Graham Law, University of Glasgow, on carnivore behaviour and adaptations in relation to welfare in captivity, and Dr David Shepherdson, Portland Zoo, Oregon, on enrichment and how to incorporate it into routine husbandry.

Stirling also awarded three prizes to students who had contributed significantly to animal welfare through their dissertation projects and activities. Congratulations are therefore extended to Kellyanne Stubbs (Does positive reinforcement training have an impact on the behaviours of captive brown capuchins (*Cebus apella*)?), Mark Kingston Jones (Assessing the importance of independent movement in novel enrichment devices for large felids) and Katie Barlow (Individual differences and response to visitors in zoo-housed Diana monkeys).



University of Lincoln – Professor Daniel Mills (Department of Biological Sciences)

Professor Mills used Lincoln's link monies to support a series of regular UFAW seminars. Guest speakers covered a wide range of topics, from methods of assessing learning in horses, slaughter of red meat farm animals and development of attachment in dogs, to talks on laminitis, strangles and ragwort poisoning.

University of Edinburgh – Professor Vince Molony (RDSVS)  
University of Bristol – Professor Mike Mendl & Dr David Main (School of Veterinary Science)  
University of Glasgow – Dr Dorothy McKeegan (Faculty of Veterinary Medicine)

In a joint initiative, these three universities arranged a visit to the UK by Professor Marc Bekoff (University of Colorado, Boulder). In a series of public seminars at each, Professor Bekoff spoke on 'Animal Passions and Beastly Virtues: Why Animal Feelings Matter'. These seminars proved popular and attracted a large audience and much discussion.

### The UFAW Vacation Scholarship scheme

The Vacation Scholarships awards, first launched in 1983, continue to go from strength to strength and UFAW staff often encounter past scholars, of which there are now close to 250, as part of their other animal welfare activities. It is pleasing to see such individuals making a success of pursuing their interests in animal welfare and its science, and reflects the growing importance of this area in recent years. Examples of studies undertaken by 2005 scholars are described below, and congratulations are extended to the successful 2006 scholars (see page 13).

Now well established in the calendar, arrangements have been made for this year's UFAW vacation scholarship meeting, where vacation and other scholars supported by UFAW present the findings of their studies. Free and open to all, it will take place at the University of Newcastle in mid-December and anyone interested in attending should contact the Development Officer, Dr Stephen Wickens (email:wickens@ufaw.org.uk) for further details. In addition to individuals, attendance by organised student groups in support of their studies is welcomed (space permitting).

### Welfare in horses used for therapeutic riding

At many riding centres throughout the world, people with disabilities are offered 'horse assisted therapy'. Such therapeutic riding has been shown to be of benefit to the riders, but the impact on the welfare of the horses is less clear.

UFAW Vacation Scholar, Alexandra Brunt, under the supervision of Dr Katja van Driel of the Central Science Laboratory, investigated the welfare impact of disabled riders on horses used in assisted therapy. She assessed the impact of three different riders – those with physical disabilities, learning disabilities, or both – on the welfare of eight experienced therapy horses. The riders were categorized on the basis of the severity of their disability and the way they sat on the horse. Salivary cortisol levels, heart rate and frequency of stress-related behavioural responses – tail flicks and head lifts – were used as indicators of welfare in each horse.

Alexandra found that physiological and behavioural responses in the horses could not be regarded as indicating significant welfare impairment – the highest rise in cortisol detected was 40%, but a doubling of cortisol was deemed as necessary for a diagnosis of significant stress to be made. This lack of a response may be down to the careful selection of placid, biddable horses for use in such therapy. The study did however suggest that the balance of the rider across the horse was a factor worth further consideration – the greatest responses were found with riders with severe disabilities and who were not centrally balanced – especially with regards to the potential long-term effect of such riders on the alignment of the horse's spine.

### Comparison of the acute effects on lambs of castration procedures

The majority of male lambs in the UK are castrated by the 'standard' tight rubber ring method, in which a rubber ring is placed around the base of the scrotum, preventing the flow of blood to the tissue and leading in time to the shedding of the scrotum. Concern has been raised about this method – allowed without anaesthesia in lambs up to seven days old – as research has shown that it is associated with considerable acute and chronic pain.

Ruth Clements, Royal (Dick) School of Veterinary Studies, under the supervision of Ruth Layton, compared the impact of an alternative method of castration which retains the testes but renders them infertile. 'Short scrotum castration' avoids damaging the nerve supply to the testes and hence should lessen any associated pain.

Ruth showed that for the first three hours post-castration lambs castrated by this method showed significantly fewer acute behavioural responses associated with pain – foot stamping, kicking, 'bunny hopping' and rolling – than lambs castrated by the 'standard' method, supporting the findings of other studies. She recommends that where it is not possible to adopt husbandry procedures that avoid the need to castrate – through early segregation of lambs based upon sex and early lambing, then short scrotum castration offers a more humane, easier to implement, and probably more economic alternative.



UFAW provides information and advice on aspects of the biology, management, health, welfare and ethics of use of domestic and wild animals to government departments, non-governmental organisations, universities and others.

The Federation is consulted on draft legislation, guidelines and codes of conduct relating to animal welfare, and staff serve on several national and international advisory committees and working groups including the Animal Procedures Committee, the Zoos Forum, the Companion Animal Welfare Council and the Boyd Group.

Staff also make visits to animal facilities to advise on best practice in animal care and welfare.

Some examples of these aspects of UFAW's work are outlined here.

## Welfare and breeding

James Kirkwood, as Deputy Chair of the Companion Animal Welfare Council, chaired a CAWC inquiry on breeding and welfare in companion animals. The inquiry's report was published in May 2006 (The CAWC Report on Welfare Aspects of Modifications, through Selective Breeding or Bio-technological Methods, to the Form, Function, or Behaviour of Companion Animals).

The report explores the remarkable range of traits that have been selected for, deliberately or unwittingly, in the breeding of companion animals. The resulting diversity of morphological and behavioural modifications in vertebrates ranging from fish to mammals is extraordinary, but there seems to have been very little concern about the welfare impacts of these changes.

As CAWC puts it: "Within the boundaries of modern human ecology there are niches, which do not exist otherwise, for all manner of animal types from achondroplastic dogs to red canaries, bubble-eyed goldfish and albino corn snakes. In one sense, what we see is that the process of evolution, being constantly 'on the look out' to fill all possible niches, has begun to 'explore' these new ones; and with its inherent disregard of whether or not they are pleasant 'places' to be."

CAWC points out that welfare problems associated with genetic changes to the phenotypes of animals can be particularly serious in that they: (i) can affect large numbers of animals, (ii) have the potential to continue to do so generation after generation into the future, (iii) can have a severe adverse impact on animals' feelings (eg through pain or increased fearfulness), and because (iv) these effects can be of long duration – potentially affecting the animal for a large part of, or throughout, its life. Copies of this report are available from the CAWC Secretariat (see [www.cawc.org.uk](http://www.cawc.org.uk)).

## International Whaling Commission Workshop on Whale Killing Methods

At Defra's request, James Kirkwood was Head of the UK Delegation to the IWC Workshop on Whale Killing Methods held in St Kitt's in June 2006. Six recommendations were put forward and were agreed at the workshop. These included the following concerns:

- encouragement of efforts in training and dissemination of good practice around the world
- recommendations regarding the best types and calibres of weapons for use in aboriginal subsistence whaling
- recommendation to continue efforts for instantaneous death through improved accuracy
- recommendation that governments continue to support their scientists and veterinarians in studying welfare aspects and in monitoring, evaluating and improving techniques.

## Welfare assessment in zoos

As a member of the Zoos Forum, James Kirkwood chaired a working group on welfare and welfare assessment in zoos, the report of which was published as a chapter of the Zoos Forum Handbook. The aim of this is to assist zoos and zoo inspectors evaluate the welfare of zoo animals and, in so doing, to help promote high standards of animal husbandry in line with the requirements of the European Directive on zoos. The Chapter is available at the Zoos Forum website: <http://www.defra.gov.uk/wildlife-countryside/gwd/zoosforum/index.htm#handbook>.



## Animal Procedures Committee (APC)

Robert Hubrecht is a member of the APC, serves on the Primates sub-committee, the Applications sub-committee and is Chair of the Housing and Husbandry sub-committee. Over the last year, the Housing and Husbandry sub-committee has provided advice on training of named veterinary surgeons, and on clarity of information from funding bodies regarding their policies on funding high standards of animal accommodation for animals used in the research that they support.

## Council of Europe

Since 1998, Dr Hubrecht has been contributing to the Working Party revising Appendix A of the European Convention for the Protection of Vertebrate Animals used for Experimental and other Scientific Purposes – Guidelines for accommodation and care of animals. On the 15th June 2006 the draft revised Appendix A was unanimously adopted by the Parties to the Convention, and will enter into force, as guidance, twelve months after its adoption, ie 15th June 2007. The document is likely to be very influential for European Community countries and their legislation regarding animals used in experiments, as the EC is revising its current Directive regarding experimental animals, and has announced that it intends to cross-refer to the revised Appendix A.

## US Institute for Laboratory Animal Research Distress Committee

In the US the National Academy of Sciences is an influential society of distinguished scholars, established by Abraham Lincoln in 1863. Dr Hubrecht has been invited as one of two non-US members to take part in a National Academy of Sciences committee updating the distress section of the 1992 ILAR report, Recognition and Alleviation of Pain and Distress in Laboratory Animals. It is planned that the report will place emphasis on:

1. The scientific understanding of causes and functions of stress and distress;
2. Determining when stress becomes distress; and
3. Identifying principles for recognition and alleviation of distress.

## Iams Animal Welfare Advisory Board

Dr Hubrecht is European Chair of the Iams Animal Welfare Advisory Board. Over the last year, work by the Board has included in-depth reviews of cat housing and enrichment, dog enrichment and animal health management at the Pet Health & Nutrition Center. Implementation of many of the resulting recommendations is taking place, such as greater use of vertical space for cats and improved sight-lines for dogs.

## FELASA Working Group on Enrichment

The Federation of European Laboratory Animal Science Associations (FELASA) Working Group on Standardization of Enrichment, of which Robert Hubrecht was a member, has now published its report which is available at <http://www.lal.org.uk/felasa.html>

## BVA/FRAME/RSPCA/UFAW Joint Refinement Group

The BVA/FRAME/RSPCA/UFAW joint working group on refinement, chaired by Dr Hubrecht, has continued its work on the refinement of housing and procedures for non-human primates. It is expected that the document will be completed in 2006.

## UFAW/RSPCA (Rabbit Welfare)

UFAW is working with the RSPCA and members of the UFAW/RSPCA rabbit welfare group to provide guidelines on improving rabbit husbandry. This will be of use to all who keep rabbits, but is particularly aimed at the use of rabbits in experimental facilities. We anticipate that the document will be published as a joint publication later in the year.

## Raising standards in the treatment of behavioural disorders in animals

Currently anyone in the UK can set themselves up as an 'animal behaviour practitioner' and offer to treat behavioural disorders in animals. This is an undesirable state of affairs as individuals who lack suitable or sufficient knowledge or experience may give advice that is detrimental to both the animal's welfare and that of the owner. UFAW's Development Officer Dr Stephen Wickens has been working, in his role as Secretary to the ASAB Accreditation Committee, to raise standards and establish a recognised 'kitemark' for practitioners of clinical animal behaviour. The voluntary certification scheme administered by the Accreditation Committee seeks to achieve this by laying out the minimum standards of education, experience and ethics that should be expected of someone working as a professional in this area and offers assurance to veterinarians, the public, insurance companies and others about the individual from whom advice is being sought, including that they adhere to a Code of Conduct and are subject to a formal mechanism for dealing with complaints and issues of conduct.

## LASA presentation

Robert Hubrecht as Co-Convenor of the Laboratory Animal Science Association Alternatives Section organised, and gave a presentation at, a session on the welfare of primates used in experimentation at the annual winter meeting. Issues covered during the meeting included progress in ensuring standards of national and overseas suppliers, refinements of handling techniques and designing housing with the natural history of the primate in mind.



UFAW's activities, highlighted in this annual report, are dependent on the generosity and kindness of the charity's members and supporters – to whom we are most grateful. The charity spends very little on advertising and promotion and depends considerably on its members and supporters to assist with this by recommending the charity to others likely to share UFAW's commitment and philosophy. If you would like copies of this report to hand on to friends and relatives please let us know.

The annual membership subscription remains a modest sum at £10, or £5 for students. The value of donations made to the charity is maximised when given through the Gift Aid Scheme. Details of this and advice on how to make provision for the charity in a Will can be obtained from the Secretary and are also available on the website ([www.ufaw.org.uk](http://www.ufaw.org.uk)).

The budgeted expenditure for the 2006/7 year is £856,000 and whilst Council is satisfied that the Federation's reserves are adequate to enable the costs of the planned activities to be met, the charity is seeking to be able to support a more extensive programme of animal welfare research and education in the future.

Can you help?

## Annual General Meeting 2005

The AGM was held at the Women's Institute Hall, Wheathampstead. As in previous years this was held in conjunction with the General Meeting of the Humane Slaughter Association and Council of Justice to Animals (HSA & CJA). The members of UFAW Council also act as Trustees for the HSA. Joint meetings are held to save time and money.

The notice convening the meeting had been sent to all subscribers and was taken as read. The meeting agreed the Minutes of the AGM of 2004 and resolved to receive the Accounts and Auditor's Report for the year ended 31st March 2005. There were no questions on the Report of the year's work and the meeting resolved that the Report and Accounts be received.

It was resolved that Yianni, Neil & Co Ltd, Registered Auditors, be appointed as auditors to UFAW and its associated Trusts and their remuneration should be fixed by Council.

There were no new candidates for election and in accordance with Clause 45 of the Articles of Association, Professor R M Bennett and Mr M Radford were elected to serve a further term on Council.

## Notice of Annual General Meeting 2006

The Annual General Meeting of the Universities Federation for Animal Welfare will be held at 3.00pm on Tuesday 10th October 2006 at The Women's Institute Hall, Mead Lane, Wheathampstead. The formal notice and agenda have been sent to all members and are available from the Secretary at the registered office.

## Summarised Accounts

The summarised accounts set out below have been extracted from the full accounts and have been prepared in accordance with the 2005 Statement of Recommended Practice - Accounting by Charities (SORP) and applicable UK Accounting Standards, which were approved by the Directors/Council and signed on its behalf on 12th July 2006.

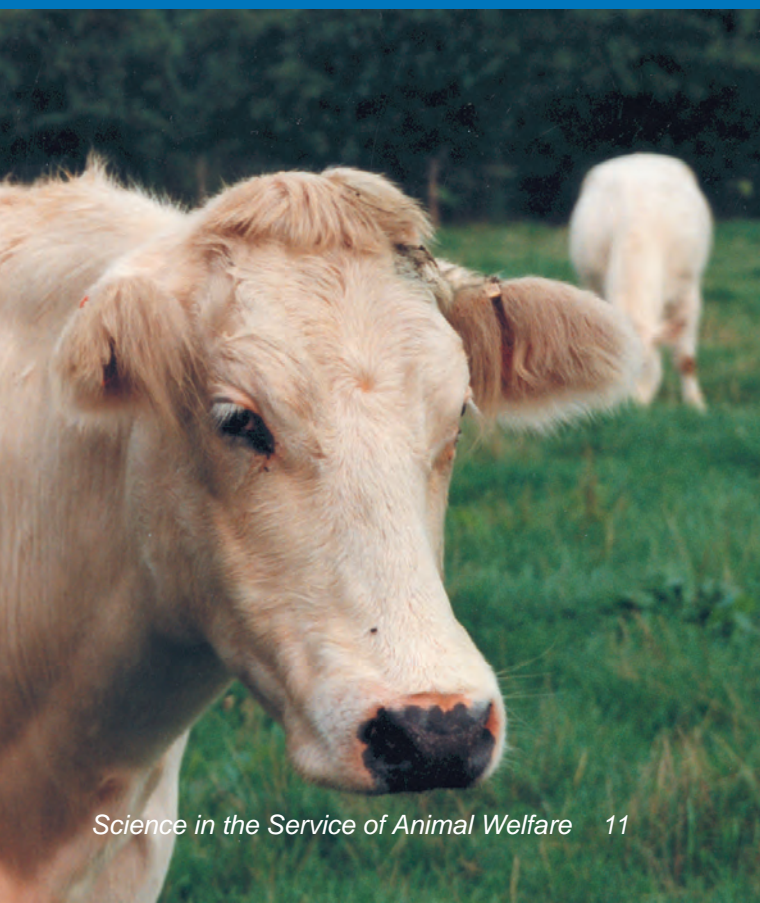
The full accounts have been audited and the auditors' opinion was without qualification. The accounts will be filed with the Companies Registry and the Charity Commission after the annual general meeting on 10th October, 2006.

Full accounts, and the audit report can be obtained from the Company Secretary, The Old School, Brewhouse Hill, Wheathampstead, Herts AL4 8AN.

## Finance and Accounts

The Federation's income during the 2005/06 year was £690,705 which is £84,164 more than the 2004/05 year of £606,541. This was largely attributable to legacy income for the UFAW SAWI restricted fund of £156,699 compared with £7,683 in the 2004/05 year, whilst UFAW's unrestricted legacy income fell from £329,482 in the 2004/05 year to £167,730 in the 2005/06 year. Legacy income varies unpredictably from year to year.

Investment income at £171,108 in 2005/06 was slightly up on 2004/05 at £162,824. Overall expenditure during the 2005/06 year of £745,981 was up by £289,720 on the year 2004/05 (£456,261), with an increase spend on research awards of £236,847 in the year 2005/06 compared with £33,653 in the year 2004/05 accounting for the major part of this increased expenditure.



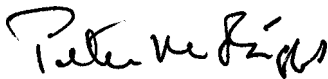
## Finance and Accounts

Summarised Financial Statements for the year ended 31st March 2006


BALANCE SHEET as at 31st March 2006

	2006	2005		2006	2005
	£	£		£	£
Incoming Resources			Fixed Assets		
Voluntary Income	436,210	403,438	Tangible Fixed Assets	388,024	400,164
Charitable Activities	83,387	40,279	Investments	4,271,990	3,306,769
Investment Income	171,108	162,824		<u>4,660,014</u>	<u>3,706,933</u>
Total Incoming Resources	<u>690,705</u>	<u>606,541</u>	Current Assets		
Resources Expended			Debtors	46,823	53,808
Costs of Generating Funds	23,157	19,683	Money Market & Deposit Accounts	713,404	965,062
Charitable Activities	571,249	289,319	Cash at Bank and in Hand	28,524	33,073
Governance Costs	4,101	2,714		<u>788,751</u>	<u>1,051,943</u>
Other Resources Expended	147,474	144,545	Current Liabilities		
Total Resources Expended	<u>745,981</u>	<u>456,261</u>	Creditors: Amounts Falling Due Within		
Net (Outgoing)/Incoming Resources			One Year	(139,179)	(68,603)
for the Year	(55,276)	150,280	Net Current Assets	<u>649,572</u>	<u>983,340</u>
Other Recognised Gains & Losses:			Total Assets less Current Liabilities	5,309,586	4,690,273
Net Realised (Loss)/Gain on Investments	(71,979)	8,902	Creditors: Amounts Falling Due After		
Gain on Disposal of Assets	131	11,113	More Than One Year	(210,789)	(90,322)
Net Income/Expenditure for the Year	(127,124)	170,295	Net Assets	<u>5,098,797</u>	<u>4,599,951</u>
Net Unrealised Gains on Investments	625,970	136,341	Funds		
Net Movement in Funds	498,846	306,636	Unrestricted (includes £92,280 revaluation		
Balance Brought Forward	4,599,951	4,293,315	reserve) (2005:£98,947)	4,538,134	4,221,746
Balance Carried Forward	<u>5,098,797</u>	<u>4,599,951</u>	Restricted	560,663	378,205
				<u>5,098,797</u>	<u>4,599,951</u>

The summarised accounts were approved by Council and signed on its behalf on 12th July 2006.



Peter Biggs CBE DSc DVM FRCPath CBiol FIBiol FRS FRCVS  
Chairman UFAW Council



Mike Bird FCA  
Treasurer UFAW Council

### Independent Auditors' Statement to the Council of the Universities Federation for Animal Welfare

We have examined the summarised financial statements which comprise the summary statement of financial activities and summary balance sheet.

#### Respective Responsibilities of the Council and Auditors

You are responsible as the Council for the preparation of the summarised financial statements. We have agreed to report to you our opinion on the summarised financial statements' consistency with the financial statements, on which we reported to you on 12th July 2006.

#### Basis of Opinion

We have carried out the procedures we consider necessary to ascertain whether the summarised financial statements are consistent with the full financial statements from which they have been prepared.

#### Opinion

In our opinion the summarised financial statements are consistent with the full financial statements for the year ended 31st March 2006.



Yianni, Neil & Co Ltd  
Registered Auditors  
London  
12th July 2006



## Congratulations to the 2006 Vacation Scholars

Jonathan Anderson, Queens University Belfast, 'To determine the relationship between animal behaviour of entire bulls and ultimate meat quality' under the supervision of Dr Bruce Moss.

Marian Bond, Anglia Ruskin University, 'The evolution of enrichment – using cladistics to characterise a successful dog toy' under the supervision of Dr Charlotte Nevison and Dr Phillip Pugh.

Gareth Davies, University of Newcastle Upon Tyne, 'The effects of cage size and shape on the behaviour of captive European starlings' under the supervision of Dr Melissa Bateson.

Ana Fernandez, University of Glasgow Veterinary School, 'Farmers' attitudes to an alternative approach to calf rearing on Scottish organic dairy farms' under the supervision of Dr Kathryn Ellis.

Victoria Hoare, Royal Veterinary College, 'Comparative study of tannin concentration of browse. Faecal parasites and faecal steroid content of captive and wild Black rhinoceros (*Diceros bicornis*)' under the supervision of Michael Waters.

Sarah Ingham, Anglia Ruskin University, 'The effects of environmental enrichment on the foraging and exploratory behaviour of an avian species, Blue tit (*Parus caeruleus*)' under the supervision of Dr Charlotte Nevison.

Katherine Larkin, University of Wales, 'The effect of light intensity and available cover on the welfare of aquarium-housed Kribensis cichlids (*Pelvicachromis pulcher*)' under the supervision of Dr Iain Barber.

Sarah McFarland, University of Edinburgh, 'The effect of browse type and presentation on feeding behaviours of the Japanese Serow, Mishmi Takin and Chinese goral' under the supervision of Dr Alastair Macdonald.

Matthew Peace, University of Bristol, 'Welfare consequences of targeted selective treatment for nematode infection in sheep and cattle' under the supervision of Dr Eric Morgan.

Emma Rosenfeld, University of Cardiff, 'Impacts of capture and handling on wild birds' under the supervision of Dr Rob Thomas.

Molly Simmonite, University of Lincoln, 'Affordance recognition by dogs (*Canis familiaris*) when carrying out action commands' under the supervision of Dr Emile van der Zee.

UFAW's top priorities are promoting high quality science that will lead to substantial advances in animal welfare, and promoting education in animal welfare, particularly at university and college level. Funds permitting, awards are given to support a wide range of project types. For those considering making an application to UFAW, these are outlined below. For further details please contact the UFAW office or visit [www.ufaw.org.uk](http://www.ufaw.org.uk).

### Hume Animal Welfare Research Fellowship

This scheme aims to promote high quality animal welfare science. Awards are to support post-doctoral research and are offered on an occasional basis only (funds permitting).

### Animal Welfare Research Training Scholarships

Projects must aim to address issues likely to lead to substantial advances in animal welfare. Since 1998, six of these scholarships have been awarded to promising young graduates to undertake three-year research projects leading to PhD or equivalent degrees.

### Vacation Scholarships

This scheme provides opportunities for students to develop their interest in animal welfare, encourage a scientific approach to the issues, and establish a starting point for further, longer-term research into improving the lives of animals. The scholarships provide for living expenses and research costs to enable students at UK universities/colleges to carry out projects lasting up to eight weeks during a summer vacation.

### Small Project and Travel Awards

UFAW makes a limited number of awards to support travel in connection with advancing animal welfare, and makes a number of other small awards (up to £3,500) to support welfare research or other small projects. These awards are open to persons in the UK and overseas.

### Research and Major Project Awards

UFAW occasionally makes more substantial awards (over £3,500) for research or other animal welfare projects (eg for educational initiatives or publications).

### Wild Animal Welfare Award

This prize is awarded for the best innovation for the welfare of captive wild animals (in zoos, rehabilitation centres or elsewhere) or for alleviating or preventing human harm to animals in the wild.

### Obituary

David Sainsbury MA PhD BSc CBiol FIBiol MRCVS

We are sad to hear of the death of David Sainsbury who passed away in June 2006. David gave to UFAW and HSA most generously of his time and expertise as a member of the Council from 1986 through until 1996 and as Chairman for the last two years of this period. After retiring from Council he continued his loyal support and endorsement of UFAW as Vice-President. He graduated from the Royal Veterinary College in July 1951 and, during his career, which built on his boyhood interests in poultry keeping, developed an international reputation for his expertise in poultry management and veterinary care. His book 'Poultry Health and Management', first published by Blackwell Scientific Publications in 1980 was reprinted in several new editions, and he kindly contributed an excellent chapter on 'Broiler Chickens' to the fourth edition of the UFAW Farm Handbook published in 1999. He will be remembered for his commitment and his enthusiastic and kind support for the work of the charities and we are most grateful to him.

## Universities Federation for Animal Welfare

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Registered Charity No. 207996

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CBiol FIBiol  
Professor P H Holmes BVMS PhD MRCVS  
W M Brancker CBE DUniv FRCVS  
I J Lean BSc PhD CBiol MIBiol  
G D Sales BSc PhD AKC MIBiol DipTCDHE  
Professor R S Anderson BVMS PhD MRCVS  
J Sanford BVSc PhD FRCVS

### Council (who are the Directors of the Limited Company)

**Chairman:** Professor P M Biggs CBE DSc DVM FRCPATH  
CBiol FIBiol FRS FRCVS<sup>λ</sup>  
**Vice-Chairman:** B R Howard BVMS PhD MRCVS<sup>λ</sup> (from 13.07.05)  
**Honorary Treasurer:** M T Bird FCA\*<sup>λ</sup>  
**Members:** J C Anderson BVMS PhD DVM FRCPATH  
FIBiol MRCVS  
Professor R M Bennett BSc MSc PhD  
Professor V Molony BVSc MSc PhD MRCVS\*  
Professor A Nolan MVB DipECVA DipECVPT  
DVA MRCVS\*  
J H Pratt BVM&S DVSM FRCVS<sup>λ</sup>  
M Radford LLB  
A G Sains NDA CDA

\* Member of the Grant Panel

<sup>λ</sup>Member of the Finance Panel

### Staff

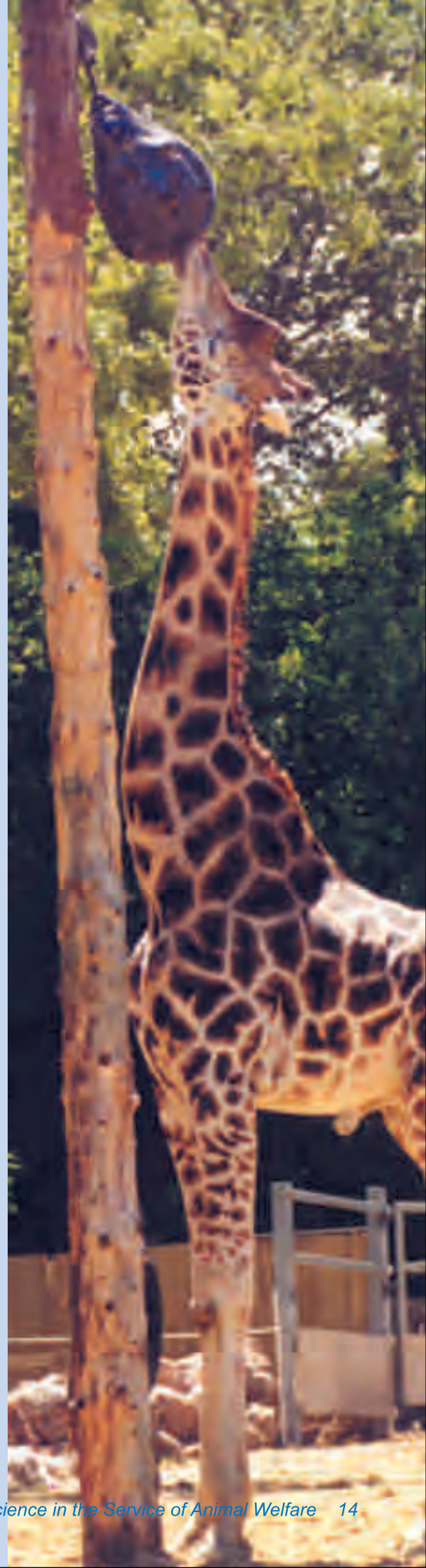
**Chief Executive/  
Scientific Director:** James K Kirkwood BVSc PhD CBiol FIBiol MRCVS  
**Deputy Director:** Robert C Hubrecht BSc PhD CBiol FIBiol  
**Scientific Officer:** Claire Salisbury BA (from 28.11.05 to 13.04.06)  
Katherine Parkes BA MSc (to 27.10.05)  
**Development Officer:** Stephen M Wickens BSc PhD  
**Publications Officer:** Elizabeth A Roberts BA MSc (to 17.07.06)  
**Editorial Assistant:** Louise Wiskin BSc PhD (to 19.05.06)  
Steve Weddell BSc BVSc (from 03.07.06)  
**Public Relations/  
Fundraising Officer:** Brian D Pemberton BA MA (from 04.07.05)  
**Secretary:** Donald C Davidson  
**Office staff:** Samantha Griffin  
Wendy L Goodwin

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