



*Science in the Service
of Animal Welfare*

UFAW

*The international animal
welfare science society*

Annual Report 2013-2014



UFAW

The international animal welfare science society

The Universities Federation for Animal Welfare, founded in 1926, is an independent charity promoting animal welfare science worldwide together with 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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Letter from the Chairman

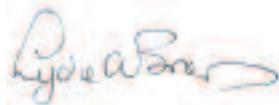
Welcome to the 2013-2014 Annual Report. First of all, on behalf of the UFAW Council may I express our gratitude and appreciation to James Kirkwood who retired in March as UFAW's Chief Executive and Scientific Director. His many achievements, dedication and compassionate wisdom will continue to benefit the charity and its work for many years to come. We wish him a fruitful and happy retirement. Robert Hubrecht, previously UFAW's Deputy Director, has succeeded James and we wish him every success in his new position.



International development continues apace, with further additions to the University LINKs scheme, overseas scholars and supported research projects. Preparations for a further international symposium next year in Zagreb, Croatia, are also underway. UFAW has also joined the World Health Organisation sponsored HINARI scheme which facilitates free access to a wide range of academic journals to organisations in qualifying developing countries. These organisations now have free access to the *Animal Welfare* journal. To encourage the development of animal welfare science in these countries, a project has also been initiated to supply books from the UFAW-Wiley Animal Welfare Series to veterinary schools free of charge. This project is the subject of this autumn's appeal, may I urge you to consider supporting this important initiative.

Congratulations to this year's winners of the UFAW Medal and the UFAW Young Scientist of the Year awards - awards which highlight the continuing strength of animal welfare science around the world and its benefit to animals. It is particularly pleasing to recognise those in their relatively early professional years alongside established scientists.

I thank you for your continued interest in and support of UFAW's work without which the year's achievements would not have been possible.



Lydia Brown

Chief Executive's Report

Dr James Kirkwood OBE BVSc FSB HonFRCVS retired from his position as Chief Executive and Scientific Director of UFAW on the 16th March 2014 after more than 17 years' service to the charity. Under James' guidance UFAW modernized and developed a range of scientific and educational initiatives that have enhanced its international standing. I, and all the staff, am extremely grateful for the great deal that he achieved during his tenure. We shall build on his work.



UFAW, right from its start as the University of London Animal Welfare Society, has been an organisation that understood that a rigorous scientific approach to animal welfare is absolutely necessary. We need to be sure that our measures of animals' welfare are founded on fact and that we are keeping them in ways that meet their needs and desires rather than our assumptions of what those might be. As the founder of UFAW, Major Hume, wrote on how to improve animal welfare 'The heart has its part to play in motivating social reform, but the head plays an equally important part in devising effective means for achieving that purpose, and UFAW came into existence in order to focus attention on the importance of authentic knowledge and accurate thought'.

This understanding (which was novel for the time) of how best to make meaningful advances in the welfare of animals that are directly or indirectly harmed by human activities is why UFAW has always worked closely with academics and professionals. It is also why much of its work – funding research, holding meetings, workshops and international conferences and publishing technical publications, including the peer-reviewed journal *Animal Welfare* – is essentially that of an international society for animal welfare science. These activities rely on the support of members and others for which we are very grateful. If you work with animals or in animal welfare, or want to help UFAW improve the life of millions of animals around the world, and are not already a member or supporter, we hope you will consider becoming one.



Robert C Hubrecht

Medal for Outstanding Contributions to Animal Welfare Science

The UFAW Medal for Outstanding Contributions to Animal Welfare Science is awarded to individuals, anywhere in the world, whose research, teaching, service and advocacy has significantly benefited animals. It recognises exceptional achievement of scientists who have made fundamental contributions to the advancement of animal welfare over a number of years.

On the 26th June 2014 at the UFAW Conference on 'Recent advances in animal welfare science IV', the work of two exceptional animal welfare scientists was recognised when Professor Mike Mendl and Professor David Fraser were both awarded the UFAW Medal.

Professor David Fraser, of the University of British Columbia Animal Welfare Program, Faculty of Land and Food Systems, Canada, was not able to be present at the York meeting, and his medal will be presented at the UFAW 2015 International Conference in Zagreb.

David has been a pioneer in applied ethology and in animal welfare science, and his work has significantly influenced the quality and direction of research in both of these scientific disciplines and the development of global policy on animal welfare.

He has built a program at the UBC that is internationally recognised as one of the best of its kind. David is particularly noted for his ground-breaking research into behavioural and other factors affecting domesticated animals and its application to develop tools that can be used to assess an animal's welfare – one example among many being the use of vocal behaviour in piglets as a reliable signal of pain and distress. His work is highly respected across disciplines including animal nutrition, management and veterinary science in addition to applied ethology.

Professor Mendl (University of Bristol, UK) is a leading animal welfare researcher and has worked on a wide range of species including companion, farm and laboratory animals, publishing over 100 peer-reviewed papers and 15 book chapters in both fundamental and applied research. Mike has been a pioneer in the study of 'cognitive bias', investigating the links between cognition, consciousness and emotion in animals with co-researchers Liz Paul, Emma Harding and others. His first work on this subject, published in Nature, was highlighted by the Faculty of 1000 research panel as a 'must read' and has since inspired more than 40 studies by other researchers. Mike's applied work, for example factors affecting tail-biting in pigs and other pig farming practices, has also been of exceptional practical benefit to improving welfare.



UFAW Medal winner Professor Mike Mendl (right) and Young Animal Welfare Scientist of the Year Dr Liesbet Pluym, with Robert Hubrecht, UFAW Chief Executive, at the UFAW conference in York.

The winner of the 2014 award was Dr Liesbet Pluym. Dr Pluym is a researcher in the Porcine Health Unit, Ghent University Faculty of Veterinary Medicine, Belgium, where she has developed, in cooperation with the Institute for Agricultural and Fisheries Research, a prototype of an automatic lameness detection system for sows, providing an important new tool to address this problem while also investigating the economic consequences of lameness and risk factors.

Liesbet has actively disseminated her findings to farmers and veterinarians, encouraging management systems that improve the welfare and health of animals, enhance farmers' working pleasure and improve financial performance. Her multidisciplinary and practical approach to lameness alleviation, both as scientist and practicing veterinarian, are likely to have a significant impact within the Belgian industry and more widely.



Young Animal Welfare Scientist of the Year Award 2014

UFAW makes this award to recognise the achievements of young scientists who have made significant contributions to improving the welfare of animals. The award is open to postgraduate students, anywhere in the world, who are currently studying for a doctoral degree or who are in postdoctoral work within six years of their PhD.

International development

UFAW has often led the way in applying science to animal welfare problems. In fact it may even have been the first scientific animal welfare society when it was founded as the University of London Animal Welfare Society in 1926. Over recent years UFAW has continued to fulfil many of the functions of a scientific society for animal welfare, producing academic publications that include the peer-reviewed journal *Animal Welfare*, holding scientific meetings and seminars, giving awards and grants for scientific research and in doing this bringing together a wide range of disciplines including ethology, veterinary medicine, physiology, ethics, neurobiology, genetics, sociology and law. It has also become increasingly international in terms of its membership, grants and other activities and has established an international advisory panel to help ensure that UFAW activities and developments are appropriate and effective. In the last year UFAW set aside funds to support the international development of animal welfare and grew its Links with universities, colleges and institutions outside the UK. In 2013 UFAW held its first international symposium outside the UK in Barcelona, and plans are underway to hold the second in 2015 in Croatia.

Recent advances in animal welfare science IV UFAW Animal Welfare Conference York Merchant Adventurers' Hall UK, 26th June 2014

The UFAW 'Recent advances in animal welfare science' conferences provide a forum for all those with an interest in animal welfare, whatever their specific area of study, to come together to share their work with others. To encourage attendance, especially from those who are beginning work in this field, the cost is kept as low possible. Through this inclusivity, UFAW hopes that best practice and imaginative and novel methods of inquiry can be shared and new approaches to long-standing areas of concern arrived at.

The fourth of these conferences, which once again proved popular and sold out weeks in advance, was held at the York Merchant Adventurers' Hall on the 26th June. 170 delegates from 11 countries, including Brazil, the USA and Nigeria, listened to talks that addressed welfare issues in a wide range of species. These included horses ('Do horses with poor welfare show "pessimistic" cognitive biases?'), chickens ('New measures of hunger in broiler breeder chickens' and 'The welfare of broiler chickens during transport to slaughter plants') and dogs ('Post-Bateson: have pedigree dogs become exposed?' and 'Refining oral gavage: Assessing and improving welfare in the laboratory-housed dog') amongst others. Dr Charlotte Burn, from the Royal Veterinary College, explored whether long term exposure to and familiarity with health problems may lead to conditions of real animal welfare concern becoming accepted as normal for an animal or breed.

As is the intention with these meetings, we were able to feature a number of young scientists as speakers who were giving their first talk at an international conference. Many posters were also displayed at the meeting. Details of posters and presentation abstracts are available on the UFAW website.

Thank you to all those who contributed to the meeting.

Presentation and poster session in the medieval York Merchant Adventurers' Hall during the UFAW conference on 26th June 2014.

Research

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 to demonstrate the Federation's current research interests.

UFAW 3Rs Liaison Group

The UFAW 3Rs Liaison Group (founded by UFAW in 1998), is a collaboration between UFAW, pharmaceutical companies, contract research organisations, animal breeders, and other animal welfare organizations. The group provides doctoral level studentships for high quality studies into practical ways of improving the welfare of animals used in research. It has raised over £460,000 since its inception and funded 7 studentships.

Tuberculosis is an increasing global health threat, with about 10 million new cases and 1.7 million deaths annually. As a result considerable efforts are being made to identify new vaccines to cope with this threat. Unfortunately testing these vaccines currently requires large numbers of animals such as mice, guinea pigs and non-human primates. Rachel Tanner (Oxford University, UK), with a current 3Rs Liaison Group studentship, is exploring and validating improved in vitro alternatives to screen early vaccine candidates.

Dr Claire Richardson, a previous winner of a 3Rs Liaison Group Award to develop an automated behavioural system for assessing mouse welfare, is now carrying out further research as a David Sainsbury Fellow funded by the NC3RS.

Legislation

In January 2013, the UK introduced revised legislation on the use and care of animals used in research as it was required to do by the new European Directive 2010/63/EU. The changed legislation has also resulted in a need to update guidance and codes of practice. UFAW is continuing to provide input to the process through discussions with Home Office officials and responses to consultations.

UFAW has also been working with the Home Office, the Association for Assessment and Accreditation of Laboratory Animal Care International, and the Chinese Association for Laboratory Animal Science to provide advice and support for the development of the first national Chinese legislation to protect the welfare of animals used in research. A joint seminar was organised, and advice and comments have been offered in a cooperative effort to develop Chinese legislation.



The first Sino-British International Seminar on Laboratory Animal Welfare and Ethics held in Beijing in March 2014.



Animal welfare research in Israel

UFAW is very grateful to all those who have supported the UFAW SAWI fund which supports the development and implementation of animal welfare in Israel.

A major UFAW SAWI project is currently in progress at the Koret School of Veterinary Medicine of the Hebrew University of Jerusalem. Roi Mandel and co-researchers are investigating the potential of a novel method of assessing the welfare of dairy cows that could provide early indications of health and welfare problems, so facilitating more timely and effective interventions.

The team is investigating cows' changing patterns of use of automated scratching brushes as behavioural indicators of stress and discomfort, correlating usage with the cows' own feeling of well-being.

Results of the research so far indicate that these devices, which are themselves good for cattle welfare, could be used as a tool to detect serious conditions such as mastitis earlier, so leading to more effective intervention. Further research is to be undertaken to assess the sensitivity of the method and the correlations between brush usage and specific conditions.



Small projects and grant awards

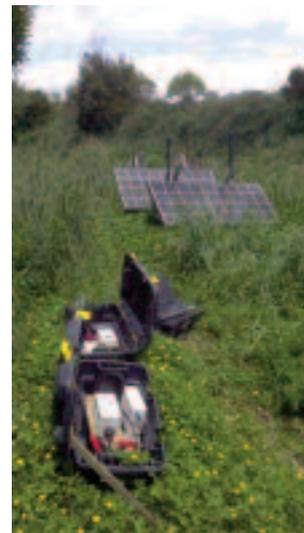
Throughout the year UFAW supported many projects that addressed animal welfare problems. A selection is described below.

Welfare-friendly monitoring techniques

Wild animal populations sometimes need to be monitored for conservation purposes, but this can compromise the welfare of individuals. In Australia wild platypuses are monitored in an effort to ensure their health, welfare and to protect the population. However, current long-term monitoring methods involve either repeated capture or the application of relatively large tracking devices, both of which may adversely affect individual platypus welfare. UFAW has supported work by Mr James Macgregor, (Murdoch University, Australia) who hopes to refine platypus monitoring techniques and is currently testing an in-stream microchip reader which monitors platypus movements and survival remotely. Results so far are promising and it appears that platypus tolerate the novel antennas in the short and long-term with only a minimal alteration to behaviour. Analysis of the results is ongoing during 2014 and UFAW looks forward to hearing more about Mr Macgregor's work at a later date.



Developing welfare-friendly monitoring techniques for platypuses.



High-tech welfare

A UFAW-supported symposium entitled 'Intelligent Systems for Animal Welfare (ISAWEL14)' was held at the University of Haifa in Israel. The aim of ISAWEL was to "bring together animal scientists who could provide expertise on welfare problems, and computer scientists who could provide insights into their possible technological solutions". The meeting considered, for example, whether the welfare of kennelled dogs may be improved by utilisation of a 'smart kennel' which would integrate interactive and monitoring technology with carer activity. The ISAWEL'14 team consider the inaugural ISAWEL Symposium to have been a success and hope to run similar meetings in the future.

Preference testing in chickens

To improve the welfare of animals we must first understand what matters to them. In 2013 UFAW supported PhD student Anna Davies, University of Bristol, in her work using a preference test methodology to explore how chickens react to risk. Anna found that chickens experience similar physiological responses to humans during some phases of decision-making, but not others. She stresses the importance of understanding how animals react during complex decision-making to ensure that preference experiments are designed and interpreted appropriately since the results of such experiments are often used to guide appropriate housing and husbandry conditions.



Assessing chickens' behavioural response to risk.

Laboratory animal welfare in India

With UFAW support, Dr Santhosh Kumar Sankaran, a laboratory animal veterinarian at a biotechnology facility in India, attended a

FELASA accredited laboratory animal science course at Utrecht University, to learn about the latest developments and standards in laboratory animal welfare science. Dr Sankaran says the course will help him "finally build a group of people who are well versed with the policies and guidelines related to animal research and who really care for their ethics and welfare".

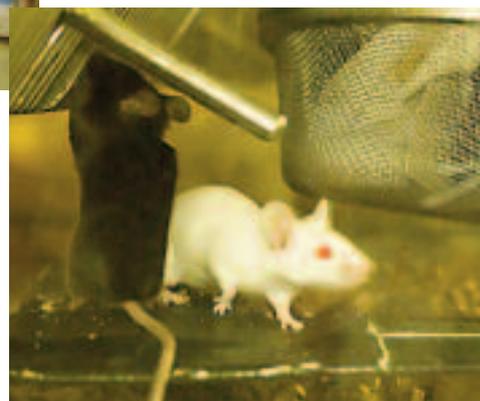
Mixed-strain housing of mice

When an animal is to be used in research, individual identification is often needed to enable researchers to link each animal with the data collected from it. Many currently used identification methods may adversely affect welfare (eg toe clipping, ear notching and tattooing); there is therefore a need for alternatives.

UFAW have supported Professor Georgia Mason and PhD student Michael Walker at the University of Guelph, Canada, who have been working on validating an alternative identification method in mice which involves housing mice of different coat colours together.

They found that mixed-strain housing is potentially a valid means of identification, and the method has a number of benefits: it does not involve any invasive or stressful procedures; it requires no technology or expertise; animals may be easily identified in the home cage; and fewer animals need to be used.

Refinement and Reduction through mixed-strain housing of laboratory mice.





Education

Lack of information about, and poor understanding of animals' needs, and the inability to detect and evaluate both negative and positive aspects of welfare – pain and pleasure – are at the root of many animal welfare problems.

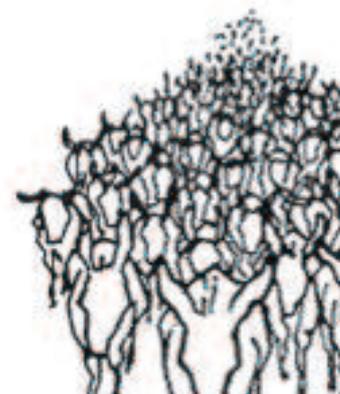
UFAW promotes education in animal welfare science, largely at university and college level, to help address these difficulties – helping to teach those who will become the teachers in the future. Ways that UFAW does this include:

- Publication of the journal *Animal Welfare*
- Publication of key texts on animal welfare (eg *The UFAW Handbook on the Care and Management of Laboratory and Other Research Animals*, and the *UFAW/Wiley-Blackwell Animal Welfare Series*)
- Running workshops and symposia
- Lecturing at universities and colleges
- Running the Animal Welfare Student 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 below.

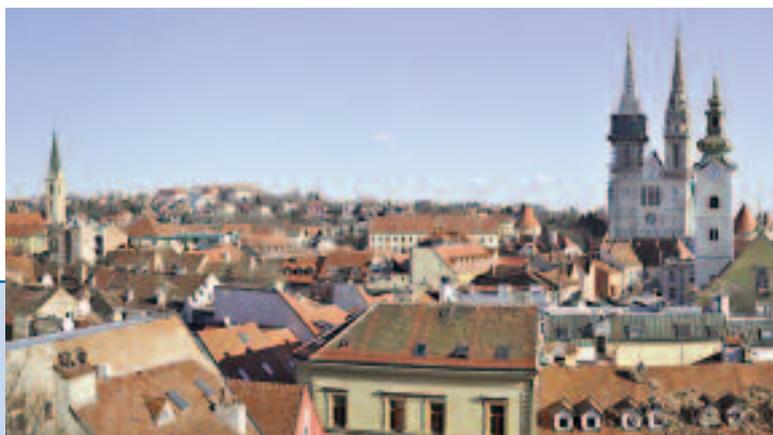
Animal Populations – World Resources and Animal Welfare
UFAW International Animal Welfare Science Symposium
Zagreb, Croatia 14-15th July 2015

Humans and their kept animals (farm and companion animals) comprise the larger part of the world's vertebrate biomass. The world's resources are limited, and as humans use more of these, fewer resources are available for wild and other animals. We humans now control or greatly influence the population sizes of many, and perhaps all, other vertebrate species, and decisions that we make to keep more of some species e.g., domestic, and farm animals have implications on the numbers and welfare of animals of other species that the world can support.



How do we apportion resources between kept and wild animals? How do we balance the welfare interests of one species against that of another? Modern veterinary science enables us to keep a high proportion of animals alive to old age (when we wish it), but these occupy niches that would otherwise have been filled by young replacements: but is fewer long-lived animals better than more short-lived ones? Little effort seems to have been made to address how such balances should be struck. It appears that it is time to try to decide how many of which animals we want and how to achieve that most humanely.

This meeting will consider issues surrounding the rationales and methodologies of humane control of animal populations (kept and free-living) in pursuit of preserving biodiversity and minimising welfare risks to animals. For further details, including information on how to contribute, see www.ufaw.org.uk.



"Zagreb hl001" by Hrگا CC BY-SA 3.0 via Wikimedia Commons.

Genetic welfare problems

The UFAW Genetic Welfare Problems website was launched in April 2011 and continues to attract high levels of interest, with approaching a quarter of a million page views over the last year.

The aim of the site is to provide information on the likelihood and severity of welfare problems caused by inherited genetic conditions and physical traits selected for in breeding in all types of companion animals in order to inform the choices of prospective pet owners and breeders and help avoid perpetuating these problems. UFAW hopes to expand the site over the coming year.



UFAW Animal Welfare Student Scholarships

Since their inception in 1983, student scholarships (then known as vacation scholarships), have proved very popular and enduring. Over 300 students have now been awarded a scholarship, their projects giving a fascinating insight into the development of the science of animal welfare in the UK and elsewhere. Increasingly studies have involved use of a range of both behavioural and physiological measures to assess and better understand the welfare state and needs of the animal itself. The number and type of institutions from which students apply for scholarships has also grown, reflecting the increasing interest in the field of animal welfare science. What has not changed however has been the passion of the scholars and their commitment.

The students below have been awarded scholarships in 2014. We look forward to receiving their reports on their work and hearing about them at the annual scholarship meeting that is free to all and takes place the first or second week of December.

Aurora Martinez Aguilera: 'Proposal of a model humane management of alpacas (*Vicugna pacos*) raised in central and south of Chile', under the supervision of Dr Beatriz Zapata, Veterinary School of University Mayor, Chile.

Samantha Arathimou: 'The effect of laminar air flow changing stations on the welfare of laboratory mice', under the supervision of Dr Claire Richardson, Newcastle University, UK.

Laura Barlow: 'Measuring environment enrichment adequacy in pigs for farm inspections', under the supervision of Professor Sandra Edwards, Newcastle University, UK.

Shona Blair: 'Surface temperature as an indicator of chronic stress in hens', under the supervision of Dr Katherine Herborn, University of Glasgow, UK.

Samantha Hambleton: 'Opinions of farmers and veterinarians on using Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) alongside local anaesthesia when disbudding calves', under the supervision of Dr Troy Gibson, The Royal Veterinary College, UK.

Laura Harper: 'Environmental enrichments effects on social learning in laboratory mice', under the supervision of Professor Georgia Mason, University of Guelph, Canada.

Naomi Humphreys: 'Assessment of pain-induced distress with infrared thermography in response to rubber ring castration and tail docking in lambs', under the supervision of Dr Troy Gibson, The Royal Veterinary College, UK.

Gemma Kitson: 'Assessing pain associated with abdominal approach vasectomy in CBA and CBA/2 mice', under the supervision of Dr Matthew Leach, Newcastle University, UK.

Ria McLean: 'The incidence of Caslick's vulvoplasty operations in Thoroughbred mares', under the supervision of Dr Mina Davies Morel, Aberystwyth University, UK.

Helen Prinold: 'How do pullets reared in different systems adapt to furnished cages as laying hens?', under the supervision of Dr Tina Widowski, University of Guelph, Canada.

Richard Carreras Ubach (Universitat Autònoma de Barcelona, Spain): 'Development of a quick automated cognitive bias task for laboratory mice', under the supervision of Professor Michael Mendl, University of Bristol, UK.

Lori Uglow: 'The use of contrafreeloading behaviour as a welfare assessment tool in domestic chickens (*Gallus gallus domesticus*)', under the supervision of Dr Ben Brilot, Plymouth University, UK.

Elaine Wu: 'Do Steller sea lions suck? Assessing feed management strategies to reduce non-nutritive sucking behaviour in captive adult sea lions', under the supervision of Dr Kristen Walker, University of British Columbia, Canada.

Animal Welfare Journal

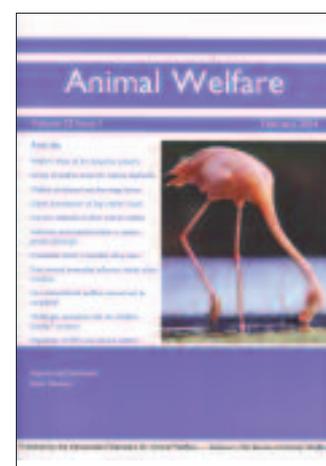
Dr Robert Hubrecht has taken over the task of Editor-in-Chief of the journal. The number of papers submitted to the journal is rising steadily and it continues to do well.

In pursuit of its charitable objective to promote welfare through education, UFAW has partnered with HINARI, a World Health Organisation programme, to make the journal available online, free or at very low cost, to staff members and students in qualifying not-for-profit organisations in developing countries throughout the World.

The journal is also linked through the OARE (Online Access to Research in the Environment) scheme led by the United Nations Environment Programme (UNEP) and the AGORA program (Access to Global Online Resources in Agriculture), set up by the Food and Agriculture Organization of the UN.

These links should make the welfare information published by UFAW accessible to a much wider audience worldwide.

Production and publication of the journal depends on the efforts of many, to all of whom, and especially the referees and Section Editors (Jann Hau, Denmark; Peter Sandøe, Denmark, Katherine Houpt, USA; Christine Nicol, UK; Don Lay, USA; Dan Weary, Canada; Kate Littin, New Zealand; Victoria Braithwaite, USA; Christoph Schwitzer, UK; Fay Clark, UK; Xavier Manteca, Spain and Isabelle Veissier, France) we are very grateful.

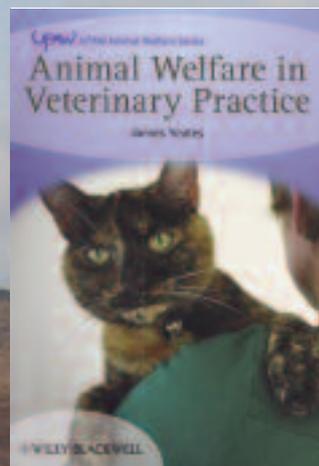
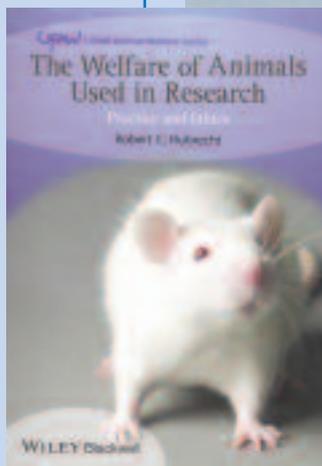


The UFAW-Wiley Animal Welfare book series

This book series now numbers ten titles covering a wide range of animal welfare issues and species and is a valuable resource for professionals and students of animal welfare science.

A new publication this year has been 'The Welfare of Animals Used in Research' by Robert Hubrecht. Details of this and previous books in the series are available at the UFAW website, www.ufaw.org.uk. There are a number of other titles at various stages in the pipeline and one likely to be published in the coming year is Companion Animal Ethics by Peter Sandøe, Sandra Corr and Claire Palmer.

If you have an idea for a book in this series please let us know.



NEW

Discount on Wiley books available to UFAW members

UFAW has arranged a **35%** discount on nearly all books published by Wiley (not just the Animal Welfare series). This useful benefit is available to all UFAW members. To obtain this discount please contact the UFAW offices.



Welfare information

UFAW continues to disseminate animal welfare information worldwide. A number of books from the UFAW-Wiley Animal Welfare series were donated to help support an animal welfare students club at Makerere University, Uganda. Mr Paul Ssuna, a veterinary student and President of the club subsequently facilitated Makerere joining the UFAW University LINKS scheme. With support from the LINKs scheme, Makerere University has since held a successful animal welfare seminar.

Three-year subscriptions to the Animal Welfare journal have been given to the Scientific Research Department of Moscow Zoo and the Department of Vertebrate Zoology of Lomonosiv Moscow State University where Dr Ilya Volodin and Dr Elena Volodina respectively hope to engage Russian scientists, zoo biologists and farmers into welfare-focused research and animal care.

UFAW also donated a number of animal welfare books to the Society for the Prevention of Cruelty to Animals (SPCA) in South Africa who state that "the material will be of enormous assistance to our animal welfare work".

The UFAW LINK Scheme

The LINK scheme is UFAW's educational outreach programme encouraging and supporting animal welfare science based activities at colleges and universities. There are now over 60 institutions in the scheme. Many of these are overseas and recently established LINKs include the University of Bern, Switzerland; Universidad Mayor, Chile; the Federal University of Paraná, Brazil; Purdue University, USA; University of Calgary, Canada; Makerere University Uganda; Sun Yat Sen and Peking universities, China; the University of J.J. Strossmayer, Croatia and the University of Ege, Turkey amongst others.

Support received from the LINK scheme is used in a variety of ways, for example programmes of seminars on animal welfare, workshops or conferences at which students present their work, and guest lectures. A few examples of such activities are described below, more can be found on the UFAW website.

Makerere University, Uganda

Seminar on 'Promotion of Animal Welfare: The Role of Stakeholders'

UFAW established a LINK with Makerere University in November 2013. Based in the College of Veterinary Medicine, Animal Resources and Biosecurity (COVAB), LINK support was used for a seminar on animal welfare and to assist in the establishment of a student's club (Makerere University Animal Welfare Students Club).



Delegates at the seminar at Makerere University

"Promotion of Animal Welfare: The Role of Stakeholders" was attended by 114 delegates. Speakers including Dr Ojala Robert (Chief Executive Officer of the Uganda Veterinary Association), Dr Omara Robert (President of Big Fix Uganda), Dr Sylvia Nalubwama (UFAW LINK for Makerere University), Ssuna Paul (President of Makerere University Animal Welfare Students Club) and Professor Anthony Mugisha (School Dean), shared their experiences and encouraged students to join initiatives geared towards animal welfare.

Ghent University and the Institute for Agricultural and Fisheries Research (ILVO), Belgium

Lectures on animal welfare in experimental settings

Belgian legislation regarding the protection of laboratory animals has recently been revised based on the EU Directive 2010/63/EU. Each laboratory is now required to establish an Animal Welfare Body (AWB) to advise on and monitor issues related to animal welfare, specific to its lab, within the framework of the 3Rs.

To support the functioning of the AWBs, the Ethical Committees at Ghent University and Institute for Agricultural and Fisheries Research (ILVO) organized a day of lectures at which staff, students and those working with animals, could hear talks on the behaviour and welfare of a number of laboratory animal species (mice and rats, horses, dogs, cats, pigs, and chickens).

University of Liverpool, UK

1st Annual UFAW Event

LINK Dr Lynn Sneddon organised the first of what she hopes will be annual UFAW meetings at Liverpool. At this meeting, keynote speaker Dr Huw Golledge (Newcastle University) talked about his innovative approaches in addressing humane anaesthesia and euthanasia in rodents. The talk was well attended by students from both the Life Sciences and Veterinary Sciences departments, research staff, academics and animal carers.

University of Guelph, Canada

The LINK scheme enabled Dr Eric Troncy, University of Montreal, to attend Guelph's annual Animal Welfare Research Symposium. A veterinarian whose research focuses on pain, Dr

Troncy spoke on how to measure pain and treat or reduce it.

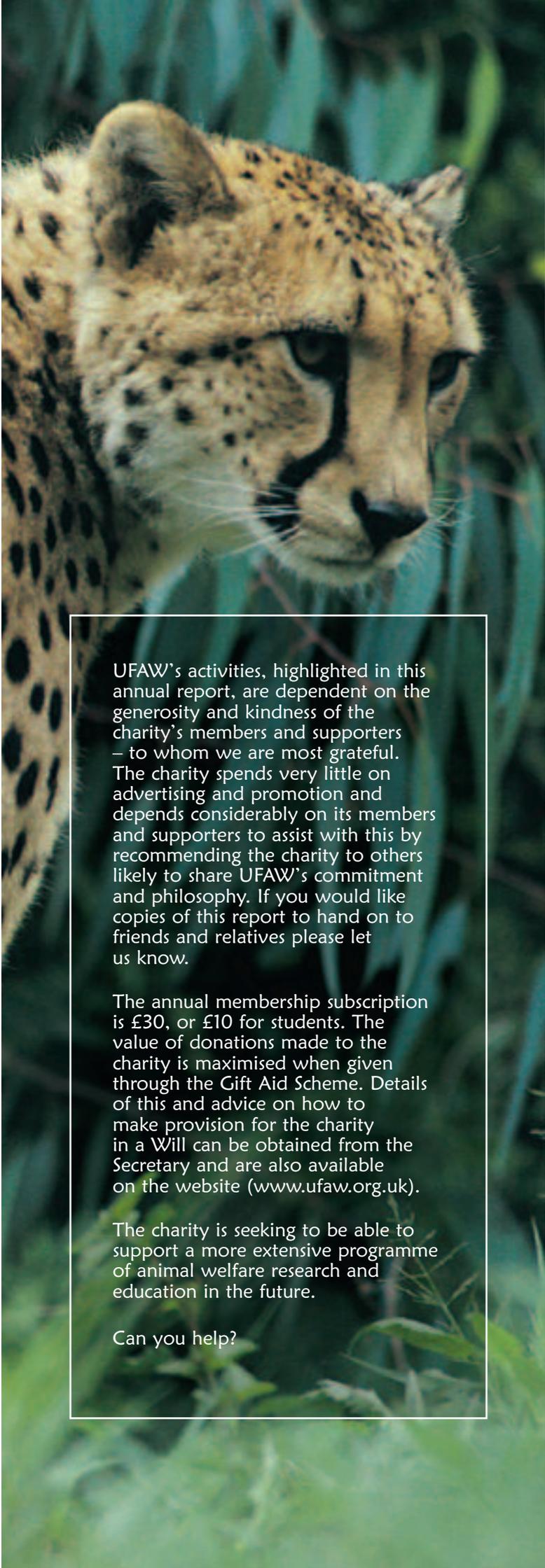
Brooksby Melton, Hartpury, Moulton and Writtle colleges, UK

Ninth UFAW Student Animal Welfare Conference

The Ninth UFAW Student Animal Welfare Conference was held at Writtle College on Friday 28th March 2014. 130 students and staff from the founding colleges, Hartpury, Moulton and Writtle were joined by Brooksby-Melton for an inspiring day of talks and poster presentations of undergraduate dissertation projects in the field of animal welfare. Dr Steve Waite, Principal of Writtle College, officially opened the conference by emphasising the importance of scientific methods of investigation. Dr Stephen Wickens (UFAW) also talked about UFAW's long history in animal welfare science and the major scientific developments that have come from UFAW-supported research.



Prize winning speakers and poster presenters from the Ninth UFAW Student Animal Welfare Conference (left to right, Elise de Tourtoulon-Adams (Commended poster - Writtle), Samuel Davies (Best oral presentation - Writtle), Dr Stephen Wickens, Gemma Barby (Best poster - Moulton) and Kimberley Lawrence (Commended oral presentation - Hartpury)



Administration & Finance

Annual General Meeting 2013

The AGM was held at the Old School, Brewhouse Hill, 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 2012 and resolved to receive the Accounts and Auditor's Report for the year ended 31st March 2013. Questions on the Report of the year's work were answered by the officials present and the meeting resolved that the Report and Accounts be received.

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

Mr M Radford, Mr D Pritchard and Professor A Lawrence stood down under the rules regarding rotation. Mr Radford and Mr Pritchard offered themselves for re-election. One new candidate was proposed, Professor Frauke Ohl, Professor of Animal Welfare & Laboratory Animal Science and Chair of the Department 'Animals in Science & Society' at Utrecht University. Mr Radford and Mr Pritchard were re-elected, and Professor Ohl was elected.

The nomination had the full support of Council.

Notice of Annual General Meeting 2014

The Annual General Meeting of the Universities Federation for Animal Welfare will be held at 12.30pm on Wednesday 15th October 2014 at The Old School, Brewhouse Hill, Wheathampstead. The formal notice and agenda have been sent to all members and are available from the Secretary at the registered office.

Finance and Accounts

The summarised accounts set out overleaf have been extracted from the full accounts and have been prepared in accordance with the Companies Act 2006, which were approved by the Directors/Council and signed on its behalf on 15th July 2014.

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 15th October 2014.

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

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 is £30, or £10 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).

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?

Finance and Accounts

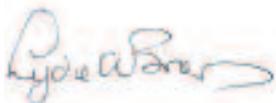
Summary of Financial Activity year ended 31st March 2014

	2013/14 £	2012/13 £
Incoming resources:		
Voluntary income		
Subscriptions & donations	44,141	31,375
Appeals	1,637	2,473
Legacies	340,855	140,393
	<u>386,633</u>	<u>174,241</u>
Charitable activities		
Publications	83,925	79,079
Royalties & lecture fees	5,057	5,020
Symposium	24,408	4,185
Interest & Recoveries	5	-
	<u>113,395</u>	<u>88,284</u>
Investment income		
Interest bearing deposits	3,660	1,408
Securities	204,978	149,306
	<u>208,638</u>	<u>150,714</u>
Total incoming resources	<u>708,666</u>	<u>413,239</u>
Resources expended:		
Costs of generating funds	75,207	71,000
Charitable activities	386,226	284,992
Governance costs	4,172	5,450
Other resources expended	143,029	169,099
	<u>608,634</u>	<u>530,541</u>
Total resources expended	<u>608,634</u>	<u>530,541</u>
Net (outgoing)/incoming resources for the year	<u>100,032</u>	<u>(117,302)</u>
Other recognised gains and losses:		
Net realised gain on investments	183,479	72,470
Net income/expenditure for the year	<u>283,511</u>	<u>(44,832)</u>
Net unrealised (losses)/gains on investments	(208,373)	616,108
Unrealised loss on revaluation of property	-	(170,740)
	<u>-</u>	<u>(170,740)</u>
Net movement in funds	<u>75,138</u>	<u>400,536</u>
Balance brought forward	6,893,546	6,493,010
Balance carried forward	<u>6,968,684</u>	<u>6,893,546</u>

BALANCE SHEET as at 31st March 2014

	2013/14 £	2012/13 £
Fixed assets:		
Tangible fixed assets	397,269	400,084
Investments	6,263,060	6,272,553
	<u>6,660,329</u>	<u>6,672,637</u>
Current assets:		
Debtors	28,736	40,417
Term deposits at bank	449,044	356,500
Cash at bank & in hand	15,038	32,051
	<u>492,818</u>	<u>428,968</u>
Creditors:		
Amounts falling due within 1 year	(119,189)	(129,042)
Net current assets	<u>373,629</u>	<u>299,926</u>
Total assets less current liabilities	7,033,958	6,972,563
Creditors:		
Amounts falling due after more than 1 year	(65,274)	(79,017)
Net assets	<u>6,968,684</u>	<u>6,893,546</u>
Funds:		
Unrestricted	6,442,831	6,361,994
Restricted	525,853	531,552
	<u>6,968,684</u>	<u>6,893,546</u>

The summarised accounts were approved by Council and signed on their behalf on 15th July 2014



L Brown MBE BVSc BA PhD FSB MBA FRCVS
Chairman



C McCann BSc ACA
Hon Treasurer

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

We have examined the summarised financial statements that 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 15th July 2014.

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 2014.



S Francis-Joseph FCCA, Senior Statutory Auditor, Anthony Joseph & Co, Registered Auditors, Stevenage, 15th July 2014.

Universities Federation for Animal Welfare

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Company Limited by Guarantee No. 579991
Registered in England Charity No. 207996

Vice-Presidents: Professor P H Holmes OBE BVMS PhD MRCVS
I J Lean BSc PhD MSB
J H Pratt BVM&S DVSM FRCVS
G D Sales BSc PhD AKC MSB DipTCDHE
Professor R S Anderson BVMS PhD MRCVS
Professor P M Biggs CBE DSc DVM FRCPath
FSB FRS FRCVS
B R Howard BVMS PhD MRCVS

Council (who are the Directors of the Limited Company)

Chairman: L A Brown MBE BVSc BA PhD FSB MBA FRCVS*[^]
Vice-Chairman: Professor R M Bennett BSc MSc PhD[^]
Honorary Treasurer: C L McCann BSc ACA*[^]
Members Professor J Bradshaw BA PhD *
B Cooper VN Cert DTM
Professor N Gregory BSc PhD
Professor A Lawrence BSc DipRurSci PhD (to Oct 2013)
Professor A Nolan OBE MVB DipECVA DipECVPT
DVA MRCVS[^]
Professor F Ohi PhD (from Oct 2013)
D Pritchard BSc BVetMed MPH MRCVS
M Radford OBE LLB
D R Sargan MA PhD*
A G Simmons BVMS MSc MRCVS

*Member of the Grant Panel [^]Member of the Finance Panel

Staff

**Chief Executive
& Scientific Director:** James K Kirkwood OBE BVSc PhD FSB HonFRCVS
(retired March 2014)
Robert C Hubrecht OBE BSc PhD FSB
(appointed March 2014)

**Deputy Scientific
Director:** Robert C Hubrecht OBE BSc PhD FSB
(to March 2014)

Scientific Officer: Elizabeth Carter BSc MSc
Development Officer: Stephen M Wickens BSc PhD
Editorial Assistant: Steven Weddell BSc BVSc MRCVS HND

**Public Relations
& Fundraising Officer:** Brian D Pemberton BA MA
Secretary: Donald C Davidson (retired July 2013)
Jane Moorman (appointed July 2013)

Office Staff: Samantha Griffin
Wendy L Goodwin

Registered Auditors: Anthony Joseph & Co, Suite G34, Business & Technology
Centre, Bessemer Drive, Stevenage, Herts SG1 2DX, UK

Bankers: HSBC Bank plc, 171 Darkes Lane, Potters Bar, Herts
EN6 1BU, UK
Barclays Bank plc, 33 Darkes Lane, Potters Bar, Herts
EN6 1BA, UK

Santander UK plc, Bridle Road, Bootle L30 4GB, UK
Bank of America, Westwood Village Branch, PO Box
37176, San Francisco, CA 94137-0001, USA

Solicitors: Withers LLP, 16 Old Bailey, London, EC4M 7EG, UK

Investment Advisers: Smith & Williamson Investment Managers,
25 Moorgate, London EC2V 5NS, UK





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