

**Universities Federation  
for Animal Welfare  
News-Sheet, Spring 2014**

*The International Animal Welfare Science Society*

## Letter from the Chairman

Welcome to the 2014 Spring News-Sheet. Since the very successful symposium in Barcelona last summer UFAW's international profile continues to rise – with more LINK organisations added worldwide, the establishing of an International Advisory Panel, successful overseas research projects, the development of a travel bursary scheme and more – building capacity in animal welfare science to benefit animals worldwide.

It is also pleasing to see the Animal Welfare Student Scholarships going from strength to strength with the latest annual scholars' meeting reported as the best yet for quality of work and presentations from both UK and overseas students.

Animal welfare science has a bright future. Thank you for your support in helping to make this, and the advances in the well-being of animals that come from it, possible.

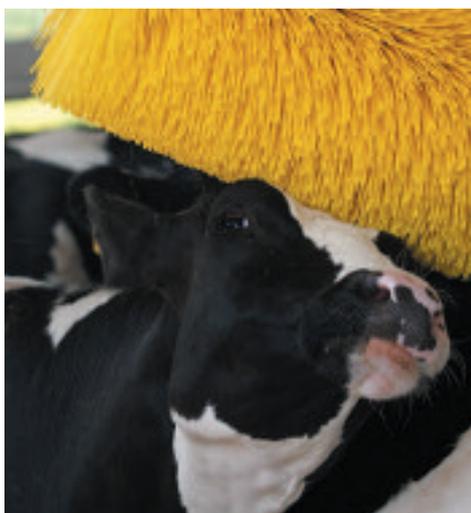


## International developments

At the UFAW symposium in Barcelona, there was encouragement for UFAW to continue to develop internationally to help build capacity in animal welfare science. To help with this, we are very grateful to Dr Anna Olsson, Institute for Molecular and Cell Biology, Porto, Portugal; Dr Kate Littin, Ministry for Primary Industries, Wellington, New Zealand; and Dr Marek Spinka, Institute of Animal Science, Prague, Czech Republic for agreeing to serve on UFAW's Advisory Panel on International Developments.

Funds (limited) have been set aside to help support activities, in the coming year, in the three areas identified at the Barcelona symposium as being particular priorities: (i) regional conferences and meetings, (ii) undergraduate research projects and (iii) travel scholarships to enable scientists (including students) to visit centres of expertise in other countries to learn approaches and methods that they can apply to tackling the problems faced in their home countries.

This year's Spring Appeal is to help support the travel scholarships, see back page.



*Dairy cow using an automated grooming brush.  
Photo: Yochi Zwilling.*

## Animal welfare science in Israel

Congratulations to UFAW PhD Scholar Roi Mandel of the Koret School of Veterinary Medicine, Hebrew University, for his paper, with Helen Whay, Christine Nicol and Eyal Klement, on 'The effect of food location, heat load and intrusive medical procedures on dairy cows' brushing activity' published in the *Journal of Dairy Science* (October 2013, Volume 96:6506-13. doi: 10.3168/jds.2013-6941.).

This work shows that cows like to use self-grooming brushes but that this is a luxury activity that they soon forego if they are under pressure. This behaviour may thus have the potential to be used as an indicator of a range of health and welfare problems in cows. Further research is to be undertaken to determine the sensitivity of the assessment method and the correlations between brush usage and specific conditions. The project could lead to significant advances in dairy cow welfare, not only in Israel but around the world. We look forward to further results from this work and to other successful projects in Israel.

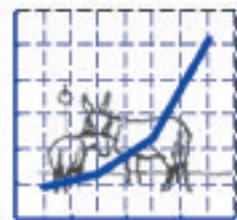
## Welcome

Jane Moorman joined the staff of UFAW, and sister charity the HSA, as Secretary in July 2013. Raised in a farming community in Wales and now living in Hatfield, Jane has over 25 years experience of finance and business administration in both the private and not-for-profit sectors. We extend a warm welcome to her.

## Recent Advances in Animal Welfare Science IV

### UFAW Animal Welfare Conference

York Merchant Adventurers' Hall, 26th June 2014



UFAW is holding the fourth in its series of one-day conferences on 'Recent advances in animal welfare science' on 26th June 2014 in the medieval Merchant Adventurers' Hall, York. These meetings provide a forum at which the broad community of scientists, veterinarians and others concerned with animal welfare can come together to share knowledge and practice, discuss advances and exchange ideas and views. In addition, we hope that they provide a platform on which those who are beginning to contribute to our better understanding of animals and their needs can present their research, as well as those who are more established.



*The Merchant Adventurers' Hall, York.*

To ensure accessibility to a wide audience, the registration fee has been kept as low as possible. This year it is just £28.00.

A wide range of subjects will be covered by speakers from around the world, including amongst others: cognitive bias as a welfare indicator in horses; the welfare of chickens during transport; and the welfare of dairy cattle. Over 60 poster presentations will also be featured.

Further details, including the full programme of speakers and a registration form, can be found on the UFAW website [www.ufaw.org.uk](http://www.ufaw.org.uk).

## Genetic welfare problems in companion animals: reptiles

*The 'Spider' morph of the Royal python.*



The UFAW website on genetic welfare problems in companion animals includes descriptions of a wide range of conditions in dogs, cats, horses, rabbits, birds and fish. It does not, yet, include any conditions of reptiles. It is only relatively recently that reptiles have come to be captive-bred in large numbers and few problems associated with artificial selection have emerged.

In the summer of 2013 Mark Rose, a student at the Royal (Dick) School of Veterinary Studies, Edinburgh, undertook a UFAW-funded project to explore the prevalence, symptoms and welfare aspects of 'wobble syndrome' in Royal pythons. This inherited condition, causing tremors and incoordination, occurs in the 'Spider' morph, a strain selected for a particular skin colour pattern. In his paper, Mark makes recommendations for improved self-regulation in the herpetological community towards tackling and preventing such problems.

## Canine distemper in the Serengeti ecosystem

Canine distemper is a severe disease of dogs and some other carnivores, caused by a virus quite closely related to measles. In 1994 it was found to be the cause of an acute epidemic that killed 30% of the lions in the Serengeti. There was evidence that domestic dogs were the source and a large-scale vaccination programme was undertaken to control this risk. With funding from UFAW, Emi Takahashi, who was studying for the Master's degree in Wild Animal Health at the Institute of Zoology, undertook a serological study to investigate current prevalence of canine distemper in dogs and lions and to develop improved detection methods. It appears that the virus may circulate and persist among various species.



## Swiss award for UFAW Research Fellow

Professor Joe Garner and Dr Brianna Gaskill have been awarded a prize for Exceptional Science by the Schweizerische Gesellschaft für Versuchstierkunde (Swiss Laboratory Animal Science Association) in recognition of their work on the thermal requirements of laboratory mice.

Their research, funded through the UFAW Professor William Russell Research Fellowship, drew attention to the fact that mice prefer temperatures 4°C or more warmer than standard laboratory environments and that standard temperatures change their physiology. They showed that providing nesting material for mice used in laboratories improves mouse welfare, results in better science and has economic benefits.

UFAW congratulates Professor Garner and Dr Gaskill on their high quality and influential research which should improve animal care worldwide, and on their well-deserved prize.

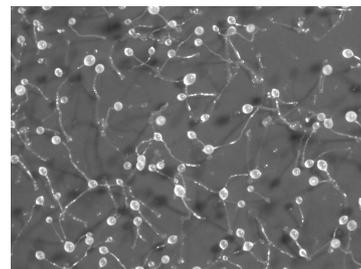


## Young researchers build on the 3Rs concept pioneered by UFAW scholars William Russell and Rex Burch

UFAW staff helped to organize a session jointly with the NC3Rs at the Laboratory Animal Science Association's 50th Anniversary meeting. This session provided an opportunity for researchers funded by these bodies to present their work on various aspects of the 3Rs. Dr Steven Robery presented his UFAW funded work on Dictyostelium (see below). Presentations by other speakers in the session showed how complex memory research using rats could be refined so that less stressful handling was required, and how dosing of dogs (a common procedure) can be refined. The session ended with a presentation on non-invasive in-vivo imaging, a field that is developing rapidly and which can provide remarkable data without compromising welfare.

### UFAW 3Rs Liaison Group

Steven Robery, the 2009 3Rs Scholar, has been exploring the potential of the Dictyostelium amoeba as an alternative to vertebrates for screening drugs for emetic properties. Steven has shown that Dictyostelium could be used at an early stage of drug development to screen out bitter and pungent tasting candidate drugs (earlier detection would both save unnecessary animal use and other resources). He has also worked on the biochemical mechanism that gives Dictyostelium sensitivity to these compounds. Stephen passed his PhD viva in September and the work has resulted in several publications.



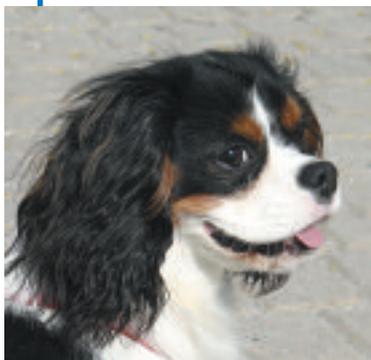
Soil-living amoeba Dictyostelium

### LASA/UFAW meeting on Euthanasia

UFAW jointly organised with LASA a meeting in September 2013 to update animal care staff and regulators on the latest research on euthanasia techniques for animals used in research. Euthanasia is meant to provide a 'good death' but some methods may not be as humane as had once been thought and it is essential to choose the most humane method possible. Papers included the use chemical euthanasia methods for fish, mechanical methods for poultry and the use of CO<sub>2</sub> for rodents. Although progress has been made in this subject it is clear that more research is needed.

## Grants and Awards

UFAW supports a wide range of welfare research projects and other activities. Some recent ones are described below.



### How do dogs with breed diseases feel?

The UFAW website lists many breed diseases for dogs and other animals and provides assessments of their likely welfare impact. In an ambitious MSc project at Bristol University, Alasdair Cockburn tried to obtain direct evidence of the welfare impact of a breed defect. He investigated methods for assessing affective (emotional) state using King Charles Spaniels with the genetic defect of Chiari-like Malformation and Syringomyelia (CM/SM). As he points out, it is the emotional side of pain that is of primary concern for welfare rather than the mechanics of damage detection (nociception). Alasdair's study was complicated by the fact that many of his subjects were under medication, nonetheless his

findings using cognitive bias and other behavioural studies provide initial evidence that the genetic defect causes negative feelings, whilst scratching (possibly a coping mechanism) is associated with more positive affect.

### – and how good are we at assessing their feelings

Researchers at the RVC have been identifying indicators of arousal and emotional valence in dogs and then testing the accuracy and reliability of human assessment of these states. It appears that humans find it easier to identify positive rather than negative signs of affect (feelings) in dogs. Worryingly for those who are concerned with welfare assessment, breed morphology can also affect peoples' judgements about whether dogs are in a negative state. For example pointers and pugs were scored as sadder than Springer spaniels in identical contexts.

### Refining wild animal research

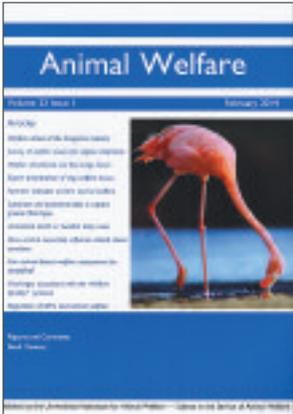
Biologists and ecologists frequently carry out small mammal research that requires live trapping. Unfortunately accidental mortality can occur during this process, and shrews are particularly at risk. One likely explanation for this is that as shrews have a high metabolic rate, even higher than one would expect on the basis of their size, they simply run out of energy. This hypothesis was tested by Randy Do at the University of Guelph, Canada, who demonstrated that supplementing traps with mealworms (in addition to the sunflower seed bait) resulted in a reduction in mortality rates of 64% and eliminated the effect of duration in trap on mortality rate. This simple technique is a practical solution that could easily be adopted by field researchers setting traps that might catch shrews and which would substantially improve the shrew's welfare.

### Pollution and Galapagos sea lions

Patrick Brock from the Institute of Zoology, London has recently published a paper (Brock PM, Hall AJ, Goodman SJ, Cruz M, and Acevedo-Whitehouse K 2013 Immune Activity, Body Condition and Human-Associated Environmental Impacts in a Wild Marine Mammal. PLoS One 8: e67132.) arising from a UFAW grant given to him in 2009. He and his co-authors has found that large changes in antibody production in the Galapagos Sea Lion are associated with changes in skin thickness, mass relative to length, and blood protein changes. As changes in antibody production have previously been linked to anthropogenic environmental impacts such as increases in faecal coliform bacteria. It seems possible that changes in the environment caused by man may be indirectly affecting the body condition of these animals as they use scarce energy resources to cope with challenges to the immune system.



## Animal Welfare, the Journal



Animal Welfare, now in its 24th year, has grown such that a complete set of issues now occupies about 70cm of shelf space but, of course, these days far more people access it on-line than on-shelf. A more important statistic is that it is taken up in 46 countries: it plays a major role in disseminating the results of animal welfare science.

We are currently exploring making the journal available free to universities in a further 80 or more developing countries through the World Health Organisation's 'HINARI' system, the Food and Agriculture Organisation's 'AGORA' system and the United Nations Environment Programme's 'OARE' system.



### Website redevelopment as interest soars

The UFAW website is undergoing a major redevelopment to improve its design, functionality and ease of use. The new site will include online membership subscription/renewal, journal subscription/renewal, donations and purchase of publications, gifts and cards.

Interest in the site continues its dramatic rise – a five-fold increase in views per month in the last three years. Much of this has been due to interest in the genetic welfare problems section of the site, confirming the importance of this information resource to pet owners, breeders and others, and indeed the concern about this welfare issue and the need to address it.



### 15th UFAW Animal Welfare Student Scholars Meeting at the Royal Veterinary College

This year's meeting was one of the best. The quality and range of the talks presented by the scholars was impressive. Talks ranged from how to weigh an entangled Right Whale at sea (for estimating the correct dose of sedative or medication) (Ashley Barratclough, RVC) to the effect of kennel noise on the hearing of dogs (Rebecca Venn, University of Glasgow), and the use of facial analysis as a means of assessing pain in zebrafish (Kirsty French, University of Liverpool).



*2013 Animal Welfare Student Scholars at the 15th Annual Meeting held at the Royal Veterinary College in December 2013.*

We would like to thank all the student scholars who presented their work, Dr Siobhan Abeyesinghe and her colleagues at the Centre for Animal Welfare for all their efforts and support of the day ensuring that it ran so smoothly, and everyone else who attended.

*Photos from some of the 2013 Animal Welfare Student Scholarship projects: thanks to (from top) Ashley Barratclough, RVC; Mallery Paoli, Royal (Dick) School of Veterinary Studies; Rebecca Venn, University of Glasgow; Maria-Theres Schlemmer, University of Natural Resources and Applied Life Sciences, Vienna; Anna Brown, Telemark University College, Norway.*



## The UFAW LINK Scheme

UFAW is keen to help further build capacity in animal welfare science around the world. The UFAW LINK scheme has grown further during the year and it is now a global network with over 60 members (see <http://www.ufaw.org.uk/links-news-events.php>).

The following are some of the new 'LINKS':

Dr Daniel Pang, University of Calgary, Canada  
Professor Victoria Braithwaite, Penn State University, USA  
Dr Mike Toscano, University of Bern, Switzerland  
Professor Frank Tuttyens, IVLO, Belgium  
Dr Sylvia Nalubwama, Makerere University, Uganda  
Dr Beatriz Zapata, Universidad Mayor, Chile  
Dr Jeremy Marchant Forde, Purdue University, USA  
Professor Desheng Zhu, Laboratory Animal Center,  
Peking University, China

The LINK scheme helps support activities that encourage engagement and interest in the science of animal welfare amongst the staff and students at LINK institutions. An example is the Animal Behaviour and Welfare Study Group at Nottingham University. UFAW LINK Dr Lucy Asher reports, "Thanks to the UFAW Link scheme, the ABAW study group...has been able to invite external speakers and promote research and interest on animal welfare topics...through monthly newsletters, journal clubs and a seminar series. Along with support from the UFAW Link (Dr Lucy Asher), the smooth running of the study group is ensured by three postgraduate students (Naomi Harvey, Giuliana Miguel-Pacheco and Chantelle Whelan, see photo). Topics for seminars and journal club are wide; ranging from pain to human-animal interactions and from lab to companion animals. Among the external speakers the group invited in 2013 were Dr Matt Leach from Newcastle University and Dr Sarah Ellis from Lincoln University. Internal speakers included Dr Mandy Roshier, Dr Sandra Corr and Dr Peter Voigt.

(Dr Leach commented) "Having the opportunity to visit Nottingham Vet School to give a presentation on my research into developing better ways to assess pain in animals was both very interesting and enjoyable. It gave me the opportunity to discuss pain assessment in animals with the numerous students, researchers and veterinarians that attended. It also gave me a really valuable opportunity to discuss animal welfare research with the animal welfare researchers at the university. I would like to thank UFAW for providing the money for the group to invite speakers to give seminars as I think that this is a very valuable activity".



*Paula Rodrigues Fontes de Sousa Moraes (São Paulo University, Brazil) and Marie-Theres Schlemmer (University of Natural Resources and Life Sciences, Vienna, Austria) presented at the Animal Welfare Student Scholarship meeting at the RVC in December 2013.*



### Notification for election to Council at the 2014 AGM

In accordance with Article 46 of the Constitution, members' nominations for election to Council at the 2014 AGM must reach the UFAW office between 6th August and 3rd September 2014. Further information is available from the UFAW Secretary.

### 2014 Annual General Meeting

This year's AGM will be held in the afternoon of Wednesday 15th October 2014 at the UFAW office (The Old School, Brewhouse Hill, Wheathampstead, Herts). Full details of the time and business of the meeting will be sent to members in due course.

### Council changes at the 2013 Annual General Meeting

Professor A Lawrence retired from Council. We extend our gratitude to him for his time and service to UFAW. We welcome Professor Frauke Ohl, Professor of Animal Welfare and Laboratory Animal Science and Chair of the Department 'Animals in Science and Society' at Utrecht University, Netherlands, who was elected to Council. Mr M Radford and Mr D Pritchard were re-elected to Council.

# Spring Appeal

*to support the development of the UFAW International Travel Bursary Scheme*

The development of animal welfare science and education is underpinning great strides forward in the well-being of animals. It is important to nurture this development throughout the world so that all animals might benefit from it.

At a special session during the UFAW International Symposium in Barcelona, delegates and UFAW staff discussed ways that UFAW might further advance animal welfare and its science internationally. Among activities identified as being of key importance was the enabling of scientists in less developed regions to travel to centres of expertise in other countries to learn approaches and techniques for addressing welfare problems in their home countries. Such learning can generate major positive impacts on welfare that would otherwise be difficult, more costly or take much longer to achieve, while promoting the development of an effective international animal welfare science community.

*Your support in helping UFAW further develop its International Travel Bursary Scheme can greatly advance the welfare of animals throughout the world.*

If you would like to contribute please send a donation to the Spring 2014 Appeal at the UFAW office address. Many thanks!

*Thanks to all those who contributed to the Autumn 2013 Appeal in support of the UFAW Animal Welfare Student Scholarships.*

## Other ways you can support the work of UFAW

UFAW's work relies on the support and generosity of members and donors, and this support is greatly appreciated. In addition to our Spring and Autumn Appeals, here are some other ways you can help promote animal welfare and animal welfare science:

### *Become a member*

Individual membership is just £30 a year (£10 for students). Corporate membership from £20 a year.

### *Recruit a member*

If you are already a member, why not recruit a colleague or friend?

### *Support the University Links*

There are currently 60 academic institutions worldwide represented. You can participate in their activities and help promote UFAW's objectives.

### *Subscribe to 'Animal Welfare'*

The quarterly scientific and educational journal now has full online access and back issue search facility for subscribers.

### *Join our Regular Giving Programme*

Regular monthly donations greatly help us to plan UFAW activities.

### *Pledge a gift in your Will*

Over the years legacies have been extremely important to UFAW's work. An information leaflet on leaving a gift in your Will is available free from UFAW.

### *Sponsor an activity*

There are frequent opportunities to sponsor particular activities, events or projects of interest to institutional or corporate organisations.

### *Shop at UFAW*

Choose from our exclusive range of clothing, stationery, gifts and cards that also help promote UFAW. Ask for a brochure or visit [www.ufaw.org.uk](http://www.ufaw.org.uk)

*For more information on any of these visit [www.ufaw.org.uk](http://www.ufaw.org.uk) or contact the UFAW office.*



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