

A photograph of two seals sitting upright in a metal cage. They are facing each other, and their whiskers are touching. The cage is made of grey metal bars. The floor is a light-colored, possibly wet, surface. The background shows more of the cage structure and a blue wall.

**Universities Federation
for Animal Welfare
News-Sheet, Spring 2015**

Letter from the Chairman

Welcome to the 2015 Spring News-Sheet. Welcome also to Dr Huw Golledge who joined UFAW in September as Senior Scientific Programme Manager.

As you will see from this News-Sheet, there are so many animal welfare science initiatives and projects being undertaken by UFAW, including a range of grants and awards in pursuit of good animal welfare science, that it is difficult to single out just a few in this brief letter. The 2015 Spring Appeal is in support of the Garden Wildlife Health project, in which many of you I know will have a keen interest. The international development of animal welfare science is of particular importance to animal welfare worldwide and UFAW is taking a number of initiatives in this regard, not least the forthcoming International Animal Welfare Science Symposium in Zagreb in July this year. More information about this and all of the other UFAW activities can be obtained from the website (www.ufaw.org.uk).

Finally, thank you for your continued generous support of UFAW and its host of important projects aimed at a better understanding and improvement of animal welfare around the world.



R.M. Bennett

International development of animal welfare science

One of UFAW's goals is to encourage the development of animal welfare science around the world. This increases animal welfare science capacity and so increases the likelihood that local welfare issues will be addressed in an evidence-based way. UFAW therefore, provides funds to support regional conferences and meetings, undergraduate research projects and travel scholarships. Recent grants within this programme have included support of travel for students from South Africa working on heat tolerance of penguins and from Canada working on refining and reducing the use of mice in research. UFAW has also funded projects on the development of methods to assess the welfare of bottlenose dolphins, and research to develop methods that replace the use of animals in toxicity screening assays.

Garden Wildlife Health



Disease in wildlife can result from human activities (for example feeding wild birds can increase the risks of disease transmission and regular hygiene practices are important, see the UFAW website). This was why UFAW initiated the 'Garden Bird Health initiative' in 2005 to help identify new epidemics of disease and causes of disease amongst garden birds. This project subsequently led to the development of an expanded project, managed by the Zoological Society of London, which also includes amphibians, reptiles and hedgehogs. UFAW has committed funds over the next three years to the Garden Wildlife Health project to develop website tools to better collect and analyse the vital data needed.

This year's Spring Appeal is in support of the Garden Wildlife Health project.



Expansion of information resource on genetic welfare problems in companion animals

Some years ago UFAW established a web resource on genetic conditions affecting companion animals. The aim being to provide sufficient welfare information to prospective pet owners that they could make informed choices and avoid unintentionally perpetuating these conditions by buying animals likely to suffer poor welfare. UFAW is now funding a project with the Royal Veterinary College (RVC) to employ a research assistant to add to and develop the database over the coming year.

Welcome

Dr Huw Golledge joined the UFAW staff in September. Huw has a background in neuroscience and before his appointment was a Senior Research Associate at Newcastle University working on refining methods used to euthanase laboratory animals (these animals normally have to be killed at the end of research projects, and it is important that the methods used are humane). Huw's position is Senior Scientific Programme Manager, a role in which he is helping to develop UFAW's research and educational activities as well as working on the general management of the charity.

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) 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. Whether we like it or not, 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, and how this should be achieved 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.

Speakers recently confirmed include Dr Anna Olsson (IBMC – Instituto de Biologia Molecular e Celular, Portugal) 'Quantity of life: living long, well or not at all?', Professor Peter Sandøe (University of Copenhagen) 'Does culling improve the welfare of zoo animals?', and Dr Daniel Ramp (University of Technology Sydney, Australia) 'Learning to share space with wild animals.' They join invited speakers Professor Donald Broom (University of Cambridge, UK), Professor David Fraser (University of British Columbia, Canada), Professor David Macdonald (University of Oxford, UK) and Professor Frauke Ohl (University of Utrecht, The Netherlands).



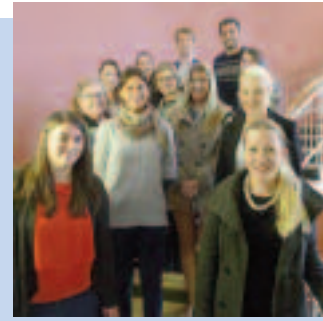
The symposium is being held at the Hotel Dubrovnik in the capital city of the Republic of Croatia, Zagreb. Located on Ban Jelačić Square, in the centre of Zagreb, nearby attractions include the Cathedral, the picturesque old Upper Town and the largest open-air market in the city Dolac. The hotel is also surrounded by many restaurants and bars.



The full programme and registration information is available on the UFAW website (www.ufaw.org.uk)

16th Animal Welfare Student Scholars Meeting at Newcastle University

This year Newcastle kindly played host to the 16th of these free-to-all annual meetings at which students who have been awarded an animal welfare student scholarship present the results of their studies. Newcastle was also well represented in the presentations, with successful scholars Laura Barlow, Gemma Kitson and Samantha Arathimou talking about their work on enrichment for pigs, assessing pain in vasectomised mice and the effect of laminar air flow changing stations on rodent welfare respectively.



2014 Animal Welfare Student Scholars at the 16th Annual Meeting held at Newcastle University in December 2014.

Whilst the range and quality of the presentations has remained a constant at these meetings, one of the evolving features has been the increasing presence of scholars from overseas, as students at non-UK institutions that are part of the UFAW LINK scheme can now apply for the award. Students from Guelph (Canada), Universidad Mayor (Chile) and Universitat Autònoma de Barcelona (Spain) all attended.

As always, we would like to thank all the student scholars who presented their work and everyone who attended, and the Newcastle staff for their hospitality and support, especially Dr Clare Richardson. If you haven't attended one of these meetings yet then why not do so? The next meeting will be held in the second week of December, and the venue announced in the annual report.



Photos from some of the 2014 Animal Welfare Student Scholarship projects: thanks to (from left) Elaine Wu, University of British Columbia, Canada; Aurora Martinez Aguilera, Universidad Mayor, Chile; Ricard Carreras Ubach, Universitat Autònoma de Barcelona, Spain; Helen Prinold, University of Guelph, Canada; Laura Harper, University of Guelph, Canada.

Grants and Awards

In-vitro research

Many thousands of laboratory animals are killed each year to obtain mandatory data on the toxicity and risk posed by the tens of thousands of new chemicals that enter the market. Where possible, in-vitro trials are used instead of whole, live animals. However, before in-vitro trials may be accepted by the research industry, much work needs to go into their development and validation.

In 2014, with UFAW's support, Diana Hall, a PhD student at the University of North Carolina, USA, travelled to the UK to meet and collaborate with scientists at Cambridge and Leicester Universities. Diana's work involves researching methods to characterise developing neurons in culture to eventually replace similar testing in whole animals. She found that many neuronal endpoints were affected by the chosen set of test chemicals, which provides good evidence that the *in-vitro* assay may prove to be a viable alternative. It is hoped that in time this will lead to the replacement of live animals in this area of laboratory research.

Improving the welfare of captive cephalopods

As of 1st January 2013 cephalopods have been included in the legislative definition of 'protected animal' when used in scientific research within the European Union. The most commonly used cephalopod in European research is the common European cuttlefish. However, there is currently little standardisation on how best to keep and care for these animals when in captivity.



Photo: Belinda Tonkins

In an effort to identify best practice, Dr Gavan Cooke and Belinda Tonkins, Bangor University, investigated a number of different husbandry and environmental factors and their effect on cuttlefish behaviour and welfare. They have identified practices that significantly reduce the number of fear or threat responses, along with inking and other potentially damaging behaviours. To raise awareness of their findings, UFAW supported Dr Cooke in presenting their work at the 9th World Congress on Alternatives and Animal Use in the Life Sciences.

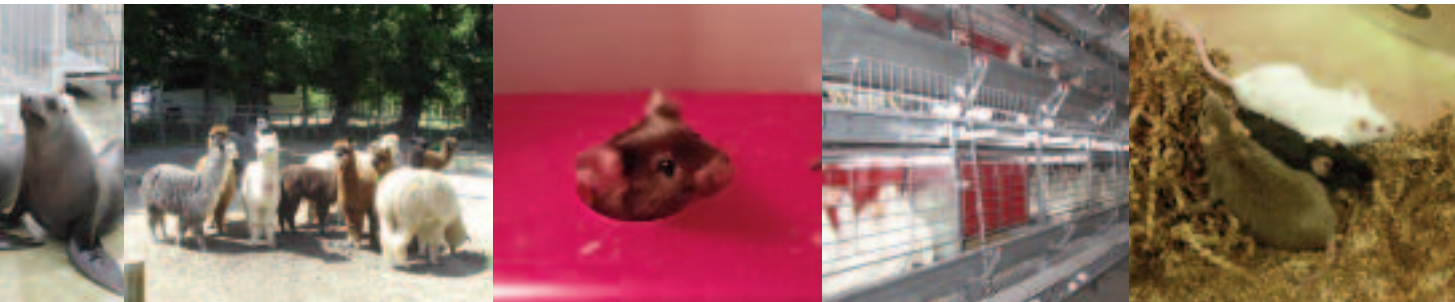
Mouse welfare at World Congress

UFAW also funded Michael Walker, University of Guelph, Canada, to undertake research and to present his work on improving the welfare of mice used in research at the 9th World Congress on Alternatives. Many common methods used to mark mice can compromise their welfare. Michael's work has shown that housing different mouse strains together makes animals easy to distinguish and avoids handling stress.

Stereotypic behaviour in parrots

UFAW has part-funded a research project by MSc student Emma Mellor who explored risk factors for stereotypic behaviour in parrots, behaviour which may indicate compromised welfare.

According to Emma, captive parrots may display a range of stereotypies such as wire chewing, route tracing, pacing, corner flipping, and feather damaging behaviour. She found that birds in full or partial contact with another bird, those in larger cages, and those with a wider captive diet were significantly less likely to exhibit whole body stereotypic behaviour. She questions the ethicality of housing parrots singly, as is common practice with pets and in laboratories.



UFAW 3Rs Liaison Group Studentship 2012-2015 'Development of mycobacterial growth inhibition assays for early evaluation and gating of novel TB vaccine candidates'.

Through the UFAW 3Rs Liaison Group Scheme, UFAW has supported a studentship awarded to Rachel Tanner, under the supervision of Professor Helen McShane, for research aimed at replacing or reducing the use of animals in tuberculosis vaccine development and testing.

Tuberculosis continues to pose an enormous global health challenge; 9 million people were infected with TB in 2013 and 1.3 million died. There is a desperate need for an improved vaccine against TB as the current BCG vaccine is of relatively low efficacy, especially in the tropics where TB incidence is highest. Current TB vaccine research is heavily dependent upon the use of animals, and involves infecting many animals with the TB bacterium. Rachel is working to develop an assay to determine vaccine efficacy *in vitro* which could drastically reduce the number of animals used in the initial vaccine testing stages. Two years into her three year project Rachel's research shows that *in vitro* tests correlate well with *in vivo* bacterium challenges and that the proposed *in vitro* system may be a viable approach both to vaccine testing and the elucidation of the mechanisms by which vaccines protect from TB. In the final phase of this project, the utility of the assay will be investigated in the context of testing novel TB vaccine candidates. Whilst much work remains to be done before the use of animals in TB vaccine research can be replaced, Rachel's work has shown that there is reason to hope that in future we can make progress in the fight against TB with much less reliance on animal models. UFAW thanks its partners in this Scheme for their support (see www.ufaw.org.uk/phhsc.php)

Animal Welfare journal

Scientific journals measure their scientific quality and influence through their impact factor. *Animal Welfare's* places it in the top quartile of journals in the animal science, zoology and veterinary fields. The Journal, which is taken world-wide, published in print and on-line and disseminated free to qualifying institutions in developing countries is a very important UFAW publication as it promotes high quality animal welfare science and disseminates research-based welfare information world-wide. Recent papers have included publications on the welfare of very young animals, separation anxiety in dogs and a survey of welfare problems in dairy cattle.





AVMA Humane Endings Meeting

UFAW's Senior Scientific Programme Manager, Dr. Huw Golledge, gave an invited presentation to the American Veterinary Medical Association's Humane Endings meeting in Chicago in November 2014. The meeting brought together researchers interested in identifying the most humane ways to euthanase various animals including pets, laboratory animals and farmed species.

Huw discussed the results of studies he performed in his previous role as a researcher at Newcastle University. These studies (part funded by UFAW) show that laboratory rats acquire learned aversions to inhaled agents such as carbon dioxide and volatile anaesthetics which are commonly used to euthanase them at the end of scientific studies. Huw argued that since all the currently used agents are aversive there should be an ongoing search for more humane ways if animals must be euthanased at the end of scientific studies.

RSPCA/UFAW Rodent Welfare Group meeting

UFAW and the RSPCA jointly organise an annual Rodent Welfare Meeting, to promote good welfare for rodents used in scientific research. This year marked the 21st anniversary of the meeting, which was held at the University of Leicester. Rats and mice still make up the vast majority of animals used in scientific research, with numbers used running to several million per annum in the UK alone, therefore a scientific understanding of their welfare and ways in which it may be improved is highly important.

Presentations at this year's meeting covered many aspects of rodent welfare and behaviour including refinements to surgical techniques and post-surgical pain control; the provision of various environmental enrichments including running wheels, and scoring of body condition. Other talks tackled the human factors which can affect the 'culture of care' in research labs as well as initiatives to exchange welfare information between those who care for rodents at various institutions.

Further information can be obtained from the lead organizer, Dr Penny Hawkins, Research Animals Department, RSPCA, penny.hawkins@rspca.org.uk.

Details of the RSPCA/UFAW Rodent Welfare Group and reports of previous meetings can be found at the link below, where a report on the 2014 meeting will also be posted in due course.

<http://science.rspca.org.uk/sciencegroup/researchanimals/implementing3rs/rodentwelfaregroup>

Animals with special needs

Most animals used in research are comparatively young and healthy. However, some are not and need special care. Examples include those recovering from surgery, those used to research painful conditions such as sciatica, and animals used for gerontology research (an area of increasing public concern with an aging population) that are older than those normally kept and used in research. To address the welfare of these animals, UFAW, with LASA, organised a joint CPD meeting in September to provide training and education to laboratory animal professionals on the care of animals with special needs.

Animal Welfare in China

China is a major user of animals for research purposes. Following on from the seminar, reported in the 2014 Annual Report, in Beijing, UFAW staff met with members of the Chinese Association for Laboratory Animal Science organised by the Animals in Science Regulation Unit (ASRU) at the Home Office to tell them about UFAW's work and to establish better contacts. UFAW, together with the Home Office, and the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) are planning a follow-up seminar on laboratory animal welfare in March 2015.



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

The UFAW LINK Scheme

In 1938, the University of London Animal Welfare Society (ULAWS) changed its name to the Universities Federation for Animal Welfare in recognition of the ever-widening range of individuals and educational institutions it had come to work with, and be represented at, since its establishment in 1926. The UFAW LINK scheme is the modern manifestation of this on-going educational commitment to encouraging and supporting animal welfare science based activities at universities and colleges.

Each institution that is part of the UFAW LINK scheme is represented by a named individual with whom we liaise and who has consented to disseminate information on UFAW and our activities, meetings, grants and awards. These individuals are also able to approach us to seek support for activities within their institution that promote engagement with and better understanding of the science of animal welfare. The LINK network continues to grow each year, and currently consists of 70 institutions. The most recently added include: the new School of Veterinary Medicine at the University of Surrey, UK; the Norwegian University of Life Sciences; and the Swedish University of Agricultural Sciences. For those universities outside the UK, membership of the LINK scheme also means that their staff and students are able to apply for UFAW animal welfare student and research training scholarships.

A full list of LINK institutions and the individual representing each one is available on the UFAW website, along with some short reports on recent activities. Anyone who is interested in finding out more about the LINK scheme, or becoming part of it, should contact Dr Stephen Wickens, email wickens@ufaw.org.uk.



Some recent University LINK photos (from left): University of Bristol 'Walks and Talks' meeting; Hartpury College Student Animal Welfare meeting; ILVO/Ghent, Belgium, students at the International Society for Applied Ethology conference; UFAW's Huw Golledge with University of Liverpool LINK Dr Lynne Sneddon; animal welfare conference at the University of Guelph, Canada; students from Wageningen University, the Netherlands.

Notification for election to Council at the 2015 AGM

In accordance with Article 46 of the Constitution, members' nominations for election to Council at the 2015 AGM must reach the UFAW office between 5th August and 2nd September 2015. Further information is available from the UFAW Secretary.

2015 Annual General Meeting

This year's AGM will be held in the afternoon of Wednesday 14th October 2015 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 2014 Annual General Meeting

Dr Lydia Brown retired from Council. We extend our gratitude to her for her time and services to UFAW. We welcome Dr Ben North, who is the Managing Director of PHARMAQ's operations in the UK and Ireland. Professor Andrea Nolan and Ms Corrie McCann were re-elected to Council.

Spring Appeal

to support the Garden Wildlife Health project

Following the success of the Garden Bird Health initiative (GBHi), initially established as a UFAW working group in 2003 and co-ordinated by the Institute of Zoology, the project has been expanded to monitor the health of, and disease threats to amphibians, reptiles and hedgehogs in British gardens – as well as continuing to investigate causes of garden bird diseases. The Garden Wildlife Health project is a collaboration between the Institute of Zoology, British Trust for Ornithology, Froglife and the RSPB, and is supported by the Esmée Fairburn Foundation, the APHA Diseases of Wildlife Scheme, Defra and UFAW.

In addition to their adverse effects on welfare, wildlife diseases can cause population declines and even local species extinctions. It is vitally important that we monitor diseases to identify their impact and underlying causes, and to identify new and emerging threats.

Your support of this project will help safeguard the health and welfare of British wildlife.

If you would like to contribute please send a donation to the Spring 2015 Appeal at the UFAW office address. Many thanks!

Thanks to all those who contributed to the Autumn 2014 Appeal in support of animal welfare education in veterinary schools in developing countries.

Should funds exceed the amount required for this project UFAW will apply funds to other projects.

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 70 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.

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For more information on any of these visit www.ufaw.org.uk or contact the UFAW office.



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