

Universities Federation for Animal Welfare

Science in the service of animal welfare

Spring 2021



Credit: Alick Simmons

CEO Dr Huw Golledge gives an overview of our work in a challenging year

Welcome to our Spring 2021 Newsletter. It has been quite a year since I wrote the introduction to the newsletter last year, oblivious to the challenges that were to come. Like everyone, thanks to the COVID-19 pandemic we've had a very different year to the one we had planned but, as you will see, UFAW continues to make a real difference despite the challenges. I hope all of our donors, supporters and friends are keeping safe during such challenging times.

Advancing knowledge about the welfare needs of animals is central to what we do and here, you can read about projects we've funded as well as work that has come to fruition. For example, we recently funded an important project to assess the welfare impacts of different methods for controlling rats. There are a variety of lethal and non-lethal methods and they vary widely in terms of their humaneness. We are often asked what the most humane way to deal with a rat infestation is, so this project will provide incredibly valuable information to those faced with the need to control rats. Our Spring Appeal this year is asking for your help to make information about the humane control of rodents as widely available as possible.

On page 3, a recently completed study will appeal to those who, like me, are dog lovers. The study has shown that, as many of us suspected, aversive dog training methods have negative consequences for dog welfare whereas rewards-based methods are much less stressful. Whilst in some ways this may seem obvious, having thoroughly researched, empirical proof that the best way to train dogs is by rewarding the behaviours we desire is incredibly important if we are to promote the use of such welfare-friendly methods.

Spreading the message about animal welfare science is as crucial as the research itself, which is why we work so hard to organise scientific meetings and conferences and our programme of meetings continues apace, albeit online. We made all our online meetings free to attend as

we wanted to minimise the barriers to access animal welfare information. However, running these meetings is costly, so we are incredibly grateful to those who donated to support the running of these meetings, they can't happen without your much-valued contributions.

I'd like to say a big thank you to our staff who have worked incredibly hard to keep all of our work going in challenging times and to extend a very warm welcome to Dr Birte Nielsen who joined the team as Assistant Scientific Director of both UFAW and our sister charity, the Humane Slaughter Association in September 2020. Birte is already making a valuable contribution to our scientific activities, despite having yet to meet most of her colleagues face to face! You can find out more about Birte on page 2.

I hope you enjoy reading about all these activities and more in this Newsletter. More so than ever, your support is essential if we are to continue to make a difference for animals. Please do consider joining UFAW or making a donation if you haven't already. Thank you.

Dr Huw Golledge
CEO & Scientific Director



Credit: UFAW

CHAIRMAN'S COMMENT



Welcome to our Spring 2021 Newsletter and highlights of some of our activities during what has been a very difficult period for everyone. Despite the impact of the COVID-19 pandemic, the whole team has managed the impact on our work very well and I am proud of the way in which they have all adapted to working remotely and very differently.

It was inevitable that some of our activities were affected but an unexpected benefit of the pandemic has been the opportunity to reach new and bigger audiences from further afield through more and more events moving online. As you will see on page 7, our online symposium with the Swiss Federal Food Safety and Veterinary Office and the Humane Slaughter Association attracted registrations from almost 700 people from as far afield as New Zealand, Brazil, Peru, Thailand, the Philippines and Zimbabwe. In addition, our *Recent advances in animal welfare VII* conference had over 1000 people registered in advance from over 47 countries; with an additional 700 people registering to watch recordings of the talks post the event. To be able to bring the global scientific community together in this way continues to fulfil one of the original objectives of UFAW, "to enlist the influence of university men and women on behalf of animals, wild and domestic."

On page 4 you can read about some of the consultations we have responded to over the last few months, as well as some of the ones we are currently working on. These are important because UFAW's work changes attitudes and legislation regarding how animals are cared for and treated, all of which leads to real, practical and lasting advances to animal welfare throughout the world affecting millions of animals. It is your support which enables us to do this, as well as fund some of the projects you can read about on page 6.

I would like to take this opportunity to thank you for your thoughts and support during what has, without doubt, also been a difficult time for you and your families.

Alick Simmons BVMS MSc MRCVS
Chair

UFAW's new Assistant Scientific Director introduces herself...

Credit: B Nielsen/UFAW



Here's a statement you don't often see: **Something great happened in 2020!** In September, I took up my new post as Assistant Scientific Director for UFAW and the HSA, and I am over the moon! Having spent most of my career as a research scientist, I am delighted to be involved in putting scientific evidence to good use in the improvement of animal welfare.

My name is Birte Nielsen, and I have a background in applied animal behaviour science, with a PhD in applied ethology from the University of Edinburgh. For the last 25 plus years I have worked, both as a scientist and as a research leader, on a variety of species and subjects. Few scientists have this opportunity, and my experience from animal welfare research on a variety of livestock species, including ruminants, pigs and poultry, has prepared me well to contribute to the work of both UFAW and the HSA. Both charities are linking scientific knowledge with real-life animal welfare issues and, by providing evidence-based education and information, UFAW and the HSA are central for the application of science into practice in the service of animal welfare.

In the recent past, I spent eight years working on olfactory behaviour of rats within a neuroscience research group and this made me realise how little we communicate across scientific fields and model species. I am convinced that a greater exchange of scientific ideas and methods across the traditional discipline barriers will lead to better, more appropriate research practices, contributing to the aims of the 3Rs.

For many years I have been a member of editorial boards of different scientific journals - a reflection of my interest in scientific publishing which spans the whole process from how to ensure the quality of the data and the subsequent publication, to ways of making results available to a wider audience. One of my tasks at UFAW is to take part in the day-to-day running of our journal, *Animal Welfare*, and contribute significantly to the continued improvement of this excellent publication.

Although it is strange to start a new job from your spare bedroom, my new colleagues have made me feel very welcome and made it both easy and fun to get to grips with the daily workings of the two charities. I look forward to contributing to the continued strengthening and development of UFAW and the HSA and their future accomplishments. ■

Stop press!

Recent advances in animal welfare science VIII will be a free to attend online event on the 29th-30th June 2021. We have made this decision due to the continuing uncertainty with regard to COVID-19 and after our first online conference in June 2020 proved very popular, attracting over 1000 registrants from around the world.

This conference will feature a range of short and longer talks and posters from established animal welfare researchers and those at the beginning of their careers from around the world. It offers an outstanding opportunity for all those with an interest to hear about the latest research, innovations and thinking across the spectrum of animal welfare science. Recordings of the conference will be available after the event for those unable to attend on the day.



Further details about the conference including registration can be found here: ufaw.org.uk/conf2021



Credit: Fougassee/UFAW

Animal Welfare Student Scholarships 2020

The Animal Welfare Student Scholarships are one of the ways UFAW looks to develop interest in animal welfare and provide students with an opportunity to conduct a research project. Since their inception in 1983, these Scholarships have acted for many people as the first stepping stone to a career of working to improve the lives of animals; a substantial number have even gone on to subsequently supervise others in taking this step.

To support our student scholars and to try to ameliorate the challenges they faced this year in collecting data and carrying out their projects in an environment of COVID-19 restrictions, we extended the time that they had to hand in the reports of their projects to us. This in turn meant that we delayed, until late February, their annual meeting (virtual this year) in which the scholars present the findings of their studies.

At this meeting, each of the nine scholars who were able to complete their studies, talked for 20 minutes about their work and answered questions from the online audience. Amongst the talks given was one that explored whether we can use infrared thermography for assessing emotional states in mice (Urša Blenkuš, University of Porto, Portugal) and another which discussed the efficacy of sustained release meloxicam for mitigating pain of cauterly disbudding in dairy calves (Chloe Wilson, The University of Sydney, Australia). Rosa Schimmel of Utrecht University was awarded the Farm Animal Care Trust's UFAW FACT Scholarship for her project on *Early-life interventions to improve laying hens welfare: impact of light during incubation and genetic background on stress responsivity of laying hens*. Given in memory of Ruth Harrison, the author of *Animal Machines*, this Scholarship is awarded to the student scholar application dealing with farm animals that most impressed the judging panel. You can read more about Rosa's project on page 3. ■

Research Update: Welfare impacts of dog training methods. Comparing aversion and reward-based training

Credit: Ana Catarina Vieira de Castro



Our research awards lead to exciting new results, providing crucial information about the welfare of animals and knowledge on how we should treat the animals under our care. As an example, a recent study that we supported has produced important new evidence about the welfare impacts of different dog training methods.

Dr Ana Catarina Vieira de Castro and her colleagues at the University of Porto in Portugal recently undertook what is, perhaps surprisingly, the first study to systematically test the effects of dog training methods. These included punishments, rewards or a mixture of both on the welfare of dogs and to assess these impacts outside the training session itself. They studied groups of dogs being trained in training schools which used aversive methods, positive methods or a mixture of both.

Dogs trained using aversion-based methods (where undesired behaviours are punished) showed elevated levels of the stress hormone cortisol and more stress-related behaviours compared to dogs trained by rewarding desired behaviours. Dr Castro and her team also used a cognitive-bias test to assess the psychological state of the dogs. Cognitive bias tests assess whether animals are pessimistic or optimistic based on their response to a stimulus which is intermediate between a stimulus associated with a reward and a stimulus which produces no reward. This is very much like asking them whether the proverbial glass is half-full or half-empty. Optimistic dogs respond to the stimulus hoping for a reward, pessimistic dogs do not respond because they do not expect a reward. Dogs trained with aversive methods were more pessimistic on average than those trained with methods involving rewards.

Dr Castro and her colleagues say this is the first quantitative demonstration that punishment-based training methods cause negative impacts on dog welfare which persist outside the training environment. This data strongly suggests what many had suspected, that in terms of welfare, reward-based training methods are preferable and that the use of aversive methods should be minimised.



You can read the full study in the journal PLoS ONE: Vieira de Castro AC, Fuchs D, Morello GM, Pastur S, de Sousa L, Olsson IAS (2020) Does training method matter? Evidence for the negative impact of aversive-based methods on companion dog welfare. PLoS ONE 15(12): e0225023. <https://doi.org/10.1371/journal.pone.0225023> ■

UFAW Research Training (PhD) Scholarship: *Developing lifetime animal welfare assessment tools using novel physiological measures of cumulative chronic stress*

UFAW's Research Training Scholarships (RTS) provide funding for promising animal welfare scientists to begin their scientific careers by undertaking research leading to the award of a PhD.

The most recent recipient of an RTS, Elena Armstrong working at Newcastle University under the supervision of Dr Tom Smulders, has spent the past three years on her PhD, searching for neural markers of stress in chickens. These measures may allow us to better understand what factors cause stress over the lifetime of chickens and ultimately to look for ways to alleviate that stress. Despite the pandemic, Elena submitted her PhD thesis on schedule towards the end of 2020 and has already published a number of scientific papers, with more to come. Following the completion of her PhD, Elena has already secured a job as a Staff Demonstrator in the School of Psychology at Newcastle University. ■

UFAW-funded Animal Welfare Student Scholarship could lead to welfare benefits for laying hens

UFAW student scholar Rosa Schimmel, who undertook an internship at the Faculty of Veterinary Medicine at the University of Utrecht, was awarded an Animal Welfare Student Scholarship in 2020. She chose laying hens for her scholarship subject, investigating the effects of light during the incubation period of the hens on gentle and severe feather pecking.

The aim of Rosa's research was to study the effect of a green light-dark cycle during incubation and the administration of food in a puzzle as enrichment on gentle and severe feather pecking. On her choice of project, Rosa said: "*Feather pecking in laying hens has repeatedly been reported as a welfare issue and since beak trimming has recently been banned in the Netherlands, other solutions must be found. Severe feather pecking is a harmful pecking behaviour that is a threat to the welfare of laying hens because it causes pain by damaging the skin and may even lead to cannibalism. However, gentle feather pecking is a social behaviour which is already present one day after hatching.*"

Rosa's supervisor Professor Bas Rodenburg, Professor of Animal Welfare at Utrecht University said: "*Rosa provided us with an excellent and clear hand-out of her data which will be used as an example to follow for the new students.*" ■

UFAW responds to a number of consultations

At UFAW we respond to consultations from governments and other bodies when they call for evidence on matters which affect animal welfare. Over the past year we have responded to several consultations on animal welfare issues and as we go to press our staff are working hard to respond to calls for evidence or opinions on, amongst others:

- The keeping of primates as pets in the UK
- The transport of livestock animals, including live export
- Compulsory microchipping of cats in the UK
- Gene editing of animals

As an example of our work in this area, we recently responded to a call from the Scottish Animal Welfare Commission for opinions on the use of glue traps to control rodents. Glue traps are sticky boards used to catch rodents. Our staff carefully considered the scientific evidence on the animal welfare impacts of these methods before concluding that they are inhumane and should ideally be prohibited. The potential for rodents to suffer significantly and for long periods of time whilst trapped on glue boards is high. However, an outright ban is opposed by some who argue that in some circumstances where rodent infestations must be urgently controlled without the use of chemicals (such as in hospitals or food preparation establishments) they are the only viable option. In the absence of an outright ban we proposed that glue traps should be tightly regulated to minimise their impact on welfare. We suggested they should only be used by trained professionals under strict supervision and with a requirement that they be checked very frequently. At present, astonishingly, these traps can be bought and used by members of the public in the UK. This can mean they are often set and forgotten, greatly increasing the potential for animals to suffer for long periods of time and even that non-target species such as pets may become caught. As an absolute minimum UFAW believes the sale of glue traps to the public should be banned and we were delighted to be able to convey this opinion to the Commission.

This kind of thoughtful, evidenced-based response to animal welfare issues is what sets UFAW apart and we believe makes our opinions highly valued by those who seek them. ■



Credit: Gerhard G/Photoxy

COUNCIL NEWS

Notification for election to Council at the 2021 AGM

In accordance with Article 46 of the Constitution, members' nominations for election to Council at the 2021 AGM must reach the UFAW office between 4th August and 1st September 2021. Further information is available from the UFAW Secretary.

2021 Annual General Meeting

This year's AGM will be held in the afternoon of Wednesday 13th October 2021, and will be held at the UFAW office (The Old School, Brewhouse Hill, Wheathampstead, Herts), subject to COVID-19 restrictions. Full details of the time and business of the meeting will be sent to members in due course.

Council changes at the 2020 Annual General Meeting

Dr Ben North stood down from his role as a member of the general council and finance panel. Dr Jane Downes, Dr Anna Olsson and Dr David Sargan were re-elected to council. ■



The LINK scheme is one of our most important educational outreach endeavours. It provides opportunities for students to get involved with animal welfare science-related activities, promoting teaching and understanding at the 120 plus universities and institutions that are part of the international LINK network. At each institution, an academic acts as our LINK, providing a platform for UFAW to engage with staff and students and provide relevant information and support.

Unsurprisingly, the crisis surrounding COVID-19 and associated restrictions is proving a continuing challenge. Staff at the LINK universities have had to adapt to delivering most, if not all, of their teaching and activities remotely. For their students, who are often isolated from each other and face limited opportunities to share ideas and experiences, their challenge is to remain motivated and engaged in an online world.

We have therefore been keen to support any animal welfare related activity we can that will have a positive impact on students and staff at LINK universities - although many we agreed to support are in abeyance because of COVID-19. We hope that they will go ahead and we will be able to report on them in due course.

Nonetheless, and as reported elsewhere, we have been able to offer free registration for UFAW meetings and have noted that attendance at these of students and staff at LINK universities has been good. Thanks to all the LINKs who promoted these meetings at their university and encouraged attendance.

Since the summer, we are pleased to welcome another four universities to the network - Long Island University College of Veterinary Medicine, University of Wisconsin-Madison and University of Maryland, USA and the University of Nigeria, Nsukka. We've also received inquiries about joining from universities in Thailand and Brazil and encourage anyone else interested in doing so to contact Dr Stephen Wickens - wickens@ufaw.org.uk. ■

Utrecht University, The Netherlands: LINK supported animal welfare competition - *Ideas on Solving Animal Welfare Issues*

(LINK: Dr Vivian Goerlich-Jansson)

COVID-19 has imposed many restrictions on all of us, and for most students their learning has been shifted online. Wanting to give her students a positive, engaging activity that would help lift their spirits, Utrecht University LINK Dr Vivian Goerlich-Jansson set a challenge for her students on the international Masters course on ethology and welfare to identify an urgent animal welfare issue and propose a solution.

Working in groups, the students had to research their ideas and then give a fifteen minute presentation. The animal welfare issues ranged from providing enriched cages for farmed meat rabbits to elucidating early life circumstances of rats bred for research purposes. Each presentation was followed by ten minutes of questions and a lively discussion on the impact and feasibility of the ideas. Finally, students and lecturers gave feedback and graded the presentations.

Vivian reports that it was a close race, but "... the winning team of Celester Brillman, Ida van Ommeren, and Rosanne Vreugdenhil convinced with their idea on establishing a Foundation for Preventive Wolf Measures. The Foundation would bring together stakeholders and provide advice on the most feasible and sustainable methods to protect sheep from wolf attacks while ensuring wolf welfare. The decisive factor was that the project aimed at solving a conflict which has consequences for the welfare of several species."

Celester, Ida and Rosanne were each awarded a book of their choice from the UFAW Wiley-Blackwell animal welfare series as a prize, which Vivian reports they were very pleased to receive and which will make a valuable contribution to their continuing education. ■



Credit: UFAW



GRANTS AND AWARDS

UFAW supports important animal welfare research and other related activities through grants made to researchers around the world. You can find out about the funding available here – ufaw.org.uk/grants. Since our last update we have agreed to fund several exciting projects, these include:

Dr Sandra Baker (Wildlife Conservation Research Unit at the University of Oxford): *Assessing animal welfare impacts in wild rat control*

Dr Baker is undertaking an important project to assess the relative welfare impact of different methods of managing wild rats when they come into conflict with humans, commonly in houses or commercial premises. Numerous methods are used, including lethal and non-lethal traps, poisons and methods to exclude them from the environment. Dr Baker has brought together experts in rodent welfare, rodent control and wildlife management (including UFAW's CEO and Dr Alick Simmons, UFAW Chair and a former UK Deputy Chief Vet) to discuss and rate the impacts of these methods. This would allow welfare to be clearly factored in to any decisions about which should be used. Both the severity and the duration of any welfare impacts for each method will be rated to give an overall picture of the welfare impact of each technique.

The output of the work will allow a more considered approach to selection of the most humane method to manage rats. We are often asked for our advice on dealing with rodent infestations and this study will allow us to offer a more informed opinion. We aim to incorporate the outcomes of the study into our existing resources on humane rodent and mole control (ufaw.org.uk/rodent-welfare/). ■

Nicola Clear (Cornwall Wildlife Trust): *Bycatch Evidence Evaluation Protocol – Can citizen scientists effectively monitor bycatch in dead stranded small cetaceans?*

This project will test whether a simple protocol can be used by trained experts and volunteers to reliably assess the cause of death of cetaceans (whales, dolphins and porpoises) on Cornish beaches. The project aims to identify whether the animals have been the victims of bycatch (capture of these non-target species in fishing gear), which is one of the leading causes of unnatural death for cetaceans. If successful, the tool could be used to quantify the extent of the problem and to push for ways to reduce bycatch. See page 8 for more information on this project. ■

Professor Raf Freire (Charles Sturt University, Australia): *Developing a tool to assess wild penguin welfare*

Wild penguins around the world are facing increasing threats to their quality of life from climate change and competition for their food sources from fisheries, but penguin welfare is rarely considered as part of their management. Professor Freire and his colleagues will develop a tool to assess welfare of penguins based on the well-known Five Domains model of animal welfare which assesses nutrition, the animals' environment, physical health, behaviour and mental state to form an overall assessment of their welfare. The team will then validate the tool before making it widely available so that it can be used to more consistently include welfare considerations when penguins are managed in the wild. ■



Credit: Marcel Langthim/Pixabay

RSPCA/UFAW Rodent Welfare Meeting

A longstanding event in our annual meetings calendar is the RSPCA/UFAW Rodent Welfare Group Meeting which we have organised alongside our colleagues from the RSPCA Animals in Science department for the last 27 years. The meeting aims to provide a forum for those working with rodents in research to discuss the latest research on rodent welfare.

This year, like so many meetings, the Rodent Welfare Meeting was forced online by the COVID-19 pandemic. Over 400 delegates from almost 40 countries attended the meeting, several times more than we would expect to see at our normal meetings held in the UK. Instead of charging for registrations, we asked attendees to donate to UFAW and the RSPCA to enable us to continue to run such meetings. Even when run online, these meetings are expensive as we have had to purchase webinar software and our staff spend many hours organising the events. We were very encouraged that many of the attendees chose to donate and are incredibly grateful to all those who did.

The theme of this year's meeting was 'cumulative experiences'. We wanted to consider not just the impact of certain scientific procedures on rodents but whether, and how, we can measure the lifetime experience of those animals and, ultimately, ensure that it is as positive as possible. This means considering many factors such as the way the animals are housed and handled, alongside the actual experimental techniques used upon them.

Talks on assessing welfare covered the use of neural indicators of cumulative severity (Tom Smulders, Newcastle University); the use of home cage behaviour to assess cumulative welfare (Aileen MacLellan, University of Guelph, Canada) and the use of a visual tool to assess the severity of welfare impacts (Jackie Boxall and Helen Murphy, GSK Medicines Research Centre). Lars Lewejohann from the Freie University in Berlin showed fascinating examples of how it is possible to 'ask' laboratory rodents which environmental enrichments they prefer, allowing us to design better environmentally-enriched home-cages for them.

Several other talks looked at ways to improve welfare over the lifetime of animals including Joanna Makowska (University of British Columbia, Canada) who discussed the ways in which rodents' housing can be improved to allow them to exhibit more of their natural behaviours; Carly Moody (Charles River Laboratories, USA) whose preliminary results on 'establishing trust' with lab rodents show that short periods of handling or pairing a positive stimulus with negative events could improve welfare; and Paulin Jirkof (Zurich University, Switzerland) who argued that many small refinements to the way rodents are handled or the procedures they undergo can add up to a significant improvement in their lifetime welfare.

The meeting was a fascinating update on the ways we can better understand and ultimately improve the welfare of rodents used in research. We were delighted with the newfound audience for this meeting and are currently planning an equally exciting event to be held later this year. A full report on the meeting will appear shortly, but in the meantime, you can read the report on last year's meeting here: <https://journal.atwjournals.com/atwagust2020#page=14> ■

FSVO/UFAW/HSA Online Symposium: *Humanely Ending the Lives of Animals*

The Swiss Federal Food Safety and Veterinary Office (FSVO) has taken a strong interest in the methods used to kill animals, with a particular focus on animal welfare concerns when using carbon dioxide (CO₂) for slaughtering livestock and killing animals used in research. The FSVO organised two meetings in Switzerland in 2018 and 2019 which looked at the animal welfare issues surrounding the use of CO₂ and alternative methods and the development of a research strategy aimed at providing answers to the unsolved questions regarding the use of CO₂ and alternatives. UFAW and the Humane Slaughter Association (HSA) participated in both previous symposia, as both charities share concerns about the humaneness of the use of carbon dioxide to kill animals and would like to see the development of more humane and practical alternatives.

A third symposium was planned for summer 2020, aimed at reviewing progress towards identifying alternatives to CO₂ and better characterising its effects on animal welfare. Unsurprisingly, the symposium was unable to go ahead in Switzerland as a result of the COVID-19 pandemic, but UFAW and the HSA stepped in to assist our Swiss colleagues in moving the event to an online symposium which was held in early November 2020. The planned meeting in Switzerland would likely have been attended by around 100 people, almost entirely from Europe. In contrast, the online symposium attracted registrations from almost 700 people from countries as far afield as New Zealand, Brazil, Peru, Thailand, the Philippines and Zimbabwe.

A wide range of talks considered the impacts of carbon dioxide and various alternative methods of killing animals on pigs, chickens, rodents, and rabbits. Another focus of the meeting was a range of studies which showed the welfare impacts of killing animals with CO₂ with a highlight being an update by Dr Jessica Martin on HSA-funded research on the use of Low Atmospheric Pressure Stunning in pigs. Sadly, the research has shown that this method may not be the humane alternative to stunning pigs that many had hoped for whilst also reinforcing serious welfare concerns about the use of CO₂ to stun pigs. You can view recordings of the talks from the meeting at - tiny.cc/FSVO

How your support makes a difference

As you will have read elsewhere in this newsletter, UFAW – in common with many charities – has been impacted by the effects of COVID-19 and is facing significant pressures and challenges in the years ahead. As a result, your support is needed now more than ever to help us to find the answers provided by science to benefit animal welfare. Sometimes the sheer scale of the task is daunting, as there are so many species of animals and many calls from around the world on our resources.

By supporting UFAW, one of the things you do is to enable us to respond to more of those calls for funding which will lead to improvements in the welfare of millions of animals. A recent example of how your support makes a difference was the part-funding of a three year study which aims to provide a greater understanding of the impact of “bycatch” on cetaceans (dolphins, porpoises and whales) in Cornwall and to prove the efficacy of the Bycatch Evidence Evaluation Protocol (BEEP) Project. Sadly, bycatch is a primary threat and cause of death for cetaceans, particularly common dolphin and harbour porpoise, in the southwest of the UK. Cornwall has been identified as a principal area of concern for incidental entanglement of cetaceans in fishing gear.

Bycatch and entanglement in fishing gear is a major animal welfare concern. Asphyxia (suffocation) has been found to be the lead cause of death for entangled cetaceans as animals have an automatic reflex to breath-hold underwater, and if trapped in nets will suffocate rather than inhale water and drown, causing extreme suffering. Marine mammals entangled in fishing gear are known to suffer significant physical injury, both externally and internally, during attempts to escape - severe bruising, deep skin cuts and slices, broken jaws, misaligned or broken teeth and internal haemorrhage are all common injuries associated with entanglement.

UFAW’s support for this project with a grant was timely as the most recent statistics are cause for concern. In 2019, 247 cetaceans (dolphins, porpoises and whales) stranded around the Cornish coastline – the second highest figure in fifteen years.

Findings from the BEEP work, together with pathology reports from stranded animals that underwent post mortems, showed that accidental entanglement in fishing gear is not only a primary cause of death, but a serious threat to the cetacean population in the south west. Niki Clear, Data Officer (GIS and Marine) for the Cornwall Wildlife Trust said: *“Of all 247 cetaceans which stranded in 2019, 43% were assessed on the beach by BEEP which identified that nearly a third of the animals were defined as cause of death by bycatch; we must continue with this research and UFAW’s grant is crucial to us being able to do so.”* There is an urgent need to test the accuracy of BEEP assessments and publish the findings as proof of concept and your support of UFAW has provided the funding which will help to achieve this. Thank you. ■



Universities Federation for Animal Welfare

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How you can help

By supporting our work, you will help us to continue to use science to better understand animals and their needs. Because our work changes attitudes and legislation regarding how animals are cared for and treated, your support can help make real, practical and lasting advances to animal welfare throughout the world – a truly wonderful legacy. You can help by:

Becoming a member - membership is just £30 per year for individuals (excluding the journal *Animal Welfare*) and £10 per year for students.

Making a donation - large or small, your donation means a great deal to the lives of many animals, and is vital in helping us continue our work. You can pledge a monthly amount of your choice, or make a one-off donation.

Leaving a gift in your will - UFAW’s work to reduce animal suffering and to improve animal welfare is only possible because of the generous support of those who leave a legacy. Gifts left in wills make up over 50% of our income, so every gift is extremely valuable to us.

Purchasing gifts from our gift selection - every purchase helps support and promote the work of UFAW.

If you’d like to become a member, renew your membership or make a donation now you can do so securely online – ufaw.org.uk/support

Other ways you can help:

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