



[www.rspca.org.uk/sciencegroup](http://www.rspca.org.uk/sciencegroup)



Review of 2017  
**SCIENCE GROUP**

# Foreword

The publication in 2017 of our [five-year strategic plan \(2017-2021\)](#) marked the start of a new era for the RSPCA. The plan has four overarching aims, focusing on:

- **optimising the welfare of animals in our care, from rescue through to rehoming or release**
- **undertaking advocacy for animals to encourage and secure effective laws and policies to protect animal welfare at home and internationally**
- **working to achieve prevention of cruelty and suffering – and promoting kindness – to animals through education, support and enforcement**
- **organisational development to ensure the RSPCA is fit for purpose as we move into the future.**

During 2017 the four RSPCA Science Group departments – covering wildlife, companion (including working), farm and research animals – have contributed to progressing these aims through a wide variety of activities, initiatives and approaches. Examples of how the Science Group goes about this work, both within and outside the Society, in the UK and overseas, can be found throughout this *Review*.

Our work over the past year has included providing evidence-based advice, support and guidance to colleagues in other areas of the RSPCA, such as operational, campaigning and fundraising sections. External-facing work included production of consultation responses and technical reports aimed at achieving positive action for animals from government, industry, learned and funding bodies and academia. We held workshops, seminars and conferences, and delivered training to groups as diverse as local authorities, police, the military, scientists, government inspectors and farming, food and pharmaceutical industry representatives. All these activities, along with our representational work on governmental, industry and academic working groups and committees, involve the gathering, review and communication of the latest knowledge from animal welfare research and other robust evidence sources.

Consideration of the ethical issues raised by various situations is also an important aspect of our approach. In addition, when clear evidence is not available, we use other well established forms of reasoning, such as the precautionary principle, which gives animals the 'benefit of the doubt'. In this way we not only raise awareness of animal welfare issues, but also provide practical solutions applicable in a range of 'real life' situations. This helps to bring about positive behaviour change amongst the many and varied target audiences in their interactions with animals.

The Society's five-year strategy also outlines the RSPCA's 'values' that guide the way in which we work. In particular, the Science Group plays a leading role in ensuring that the RSPCA delivers on its 'Expert' value, which commits us to having '*expert knowledge, acting on the basis of*



*evidence*', and underpinning '*our decisions and actions with science, data and experience*'. As progress in animal welfare science continues apace and our knowledge and understanding of the physical, mental and emotional needs of different species increases, it is essential that the RSPCA remains abreast of, and wherever possible, applies in practice the latest developments. In 2017, we were able to explore in more detail the [Five Domains model](#) of animal welfare assessment when Dr Ngaio Beausoleil, one of the research team (at Massey University, New Zealand) who first devised the model joined us for a workshop. Understanding emerging concepts and assessing how they can be most usefully applied in the context of RSPCA activities is an important part of the Science Group's role. It is only by keeping abreast of the latest information and assessment models in the area of animal welfare science that we can be as effective as possible in our efforts to help animals.

Over the past few months, discussions around Brexit have sparked speculation and predictions about its potential effects on animal welfare. As outlined in various sections of this *Review*, it is already impacting on our work, with the Department for Food, Environment & Rural Affairs (Defra) seeking our advice on a range of animal-related issues that may be affected by the UK's move away from the EU. There could well be implications for animal welfare in all areas – wildlife, research, companion and farmed animals.

Several recent Defra announcements and work programmes illustrate not only the welfare-related threats and opportunities that may result from Brexit but also the influence of the RSPCA's own policies and practices on governments and other stakeholders. For example, Defra's decision to require CCTV in all slaughterhouses mirrors the same requirement in the RSPCA's farm animal welfare standards, first recommended by us in 1995 and then made mandatory in 2011, as reported in our 2011 *Science Group Review*. Defra's stated intention to review live exports and its review of the potential role of farm assurance schemes in delivering government policy also run alongside our own work in these areas which has served to provide evidence and information on which we and others can base decisions. Similarly, Defra's request for our input on development of revised legislation on licensing conditions for various animal-related activities (as reported in this *Review*) recognises our specialist knowledge and experience across many areas of human-animal interaction.

Whilst change seems inevitable, no-one yet knows exactly what Brexit and other future developments will mean for animal welfare. Such uncertainty makes it all the more important that during 2018 and beyond, we continue to strive to ensure that all of the RSPCA's own decisions and activities – and those of others with the power to have impact on animal welfare – are informed and guided by a sound evidence base.

**Dr Julia Wrathall**  
RSPCA Chief Scientific Officer

# Highlights from 2017

## Contents

Foreword

Companion animals 4

Farm animals 10

Research animals 16

Wildlife 22

The RSPCA Science Group 28

Consultations 30

Publications & blogs

### COMPANION ANIMALS

- Successfully trialled a dedicated Behaviour and Welfare Specialist post to help strengthen the Society's ongoing behavioural rehabilitation and welfare work.
- Contributed to initiatives aimed at improving the welfare of brachycephalic animals including representation on the cross-organisational Brachycephalic Working Group and developed and delivered advice on responsible puppy buying.
- Joined forces with the Dogs Trust to jointly fund a team at the University of Bristol to identify factors most affecting the welfare of populations of racing greyhounds.

### FARM ANIMALS

- Published new versions of the RSPCA welfare standards for hatcheries (chicks, poults and ducklings), meat chickens, laying hens and turkeys, strengthening various provisions – including the gas killing standards for meat chickens, laying hens and turkeys, and the beak trimming standards for turkey poults.
- AssureWel – a collaborative project between the RSPCA, Soil Association and the University of Bristol – finalised Welfare Outcome Assessment protocols for a further three species, making a total of six fully developed welfare assessment species protocols: laying hens, meat chickens, beef cattle, dairy cattle, pigs and sheep.
- Undertook a range of consultancy work for several companies, including food retailers, restaurant chains, TV production companies and clothing retailers, providing the opportunity to improve the welfare of potentially huge numbers of farm animals worldwide and generate valuable income to fund further RSPCA work.

### RESEARCH ANIMALS

- Held a second major international conference: *Focus on severe suffering* – to help those involved in the regulation, use and care of animals in science ensure that every opportunity is taken to reduce, or ideally avoid, severe suffering.
- Co-convened a second event for members of animal ethics committees across the UK.
- Invited to deliver conference presentations and training on effective regulation, ethical review, implementation of the 3Rs and on improving animal welfare at events in China, Taiwan, Thailand and South Africa.

### WILDLIFE

- Participated in Mammal Society Conference where Adam Grogan (Head of RSPCA Wildlife Department) received the Mammal Society award for services to British Mammalogy and the Mammal Society.
- Summary of RSPCA report: *Understanding pet owners is key to improving exotic pet welfare* published in *Veterinary Record*, following presentation given at British Veterinary Zoological Society conference on RSPCA reptile research.
- Presentation on what abnormal repetitive behaviours tell us about animal welfare – delivered at the British and Irish Association of Zoos and Aquariums (BIAZA) Research Conference and the 3rd International Symposium on Zoo Animal Welfare.

# Companion animals



The Companion Animals Department is a team of specialist scientific and technical officers with knowledge and practical experience across a range of species and key welfare issues. Our work is predominantly aimed at supporting and directing the RSPCA's work to protect and improve the welfare of pets, working animals and those used in sport. To achieve this we generate, collate, review and communicate science and good practice to produce advice and information as well as underpinning the RSPCA's policies and positions.

Our work also helps to inform those with direct responsibility for animals e.g. carers of RSPCA animals and pet owners, ensuring they can provide for their animals' welfare needs. We also engage with a variety of other stakeholders including governments, veterinarians, NGOs, enforcement bodies and industry to promote and protect companion animal welfare. Each of our experts is responsible for specific initiatives to tackle individual welfare issues and this year these have included brachycephaly, cat neutering and racing greyhounds.

## HELPING THE RSPCA TO HELP ANIMALS



As well as a range of academic qualifications, all members of the Companion Animals Department have extensive experience in an array of animal husbandry situations. This allows us to approach issues from both a scientific and a practical perspective, providing advice that is both evidence-based and achievable in the rescue centre environment. It also enables us to help ensure that the work undertaken by our inspectors and centre staff in rescuing, rehabilitating and rehoming animals is evidence-based and reflects current good practice.

To promote the latest knowledge on companion animal behaviour and welfare to a range of staff, volunteers and trustees from our branches and animal centres, the department contributed to the RSPCA Animal Welfare Conference. This encompassed both formal lectures and interactive workshops, alongside a more informal evening trade show. Topics covered by the department during workshops included enriching the lives of companion animals, cat welfare and rehoming, as well as rabbit bonding and rehoming. Audiences were actively encouraged to participate in group activities and discussions, devised to support creative thinking and generate new ideas for delegates to take up on their return to animal centres.

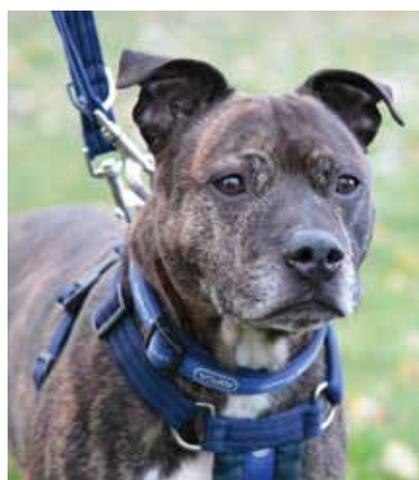
During the trade show we spoke to many people about the work of the department and highlighted our role in providing advice on caring for companion animals while they are in RSPCA care. We showcased the wide range of [information leaflets](#) developed by the Companion Animals Department, answered enquiries and featured [Rabbit Awareness Week](#), which a number of branches subsequently signed up to promote.



### Support for cat adopters

**Animal rescue and rehoming is a key focus for the RSPCA and the Companion Animals Department is responsible for providing authoritative advice and information in this area. In 2016 our animal centres and branches rehomed over 40,000 dogs, cats and rabbits.**

[Adopting from the RSPCA](#) can be hugely rewarding but, as when taking on any animal, it also requires a big commitment. In order to support adopters, the department has worked alongside other key RSPCA departments to produce a booklet designed to be given to adopters of cats at reservation stage. This pre-adoption booklet has been developed using up-to-date and evidence-based information to cover the topics most raised by adopters in those early days of bringing a cat home. The booklet aims to improve animal welfare, prepare the adopter for bringing their new cat home and help to minimise the number of animals returned by managing adopters' expectations and providing greater support if problems do arise. We have already produced a [pre-adoption booklet for dogs](#) and, going forward, we hope to produce one specifically on rabbits.



### Providing for the welfare needs of dogs in RSPCA care

**Unlike most rehoming organisations, the vast majority of animals which come into the care of the RSPCA do so via our inspectorate as a result of cruelty, neglect and abandonment and have to some degree experienced poor welfare. Consequently, most animals in RSPCA care will need some rehabilitation to modify and manage established behaviour problems, along with specialist care to prevent problems from developing and to provide for each individual's welfare needs.**

In 2017 we continued to support a 12-month project started in 2016, to trial a new dedicated post which will help strengthen the RSPCA's ongoing work on behavioural rehabilitation and welfare. This Behaviour and Welfare Specialist post is responsible for assessing and monitoring the behaviour and welfare of dogs in the RSPCA's care including development of behavioural plans; recommending and conducting evidence-based and up-to-date environmental, management and behavioural modifications; ensuring high standards of welfare and providing post adoption support. This project has proven highly successful and, as a result, this specialised post will be rolled out across the RSPCA in 2018.



## HELPING OWNERS CARE FOR THEIR PETS

### Developing products to help owners meet the welfare needs of pets

Being heavily dependent on public donations, it is incredibly important for the RSPCA to raise sufficient funds to continue our work. Consequently, the Companion Animals Department works closely with colleagues in the RSPCA Enterprise team to develop products that will not only generate an income for the RSPCA, but also help owners meet the welfare needs of their pets. 2017 saw the re-launch of some existing products alongside the development of several new items, all of which have animal welfare at their core. Our re-launched [guinea pig nuggets](#) have been reformulated to provide greater nutritional benefits and [foraging hay](#) has been developed to encourage natural foraging behaviour in both rabbits and guinea pigs.

Other new RSPCA products which are now available to buy on the high street include our range of dog shampoos which are all free from strong smelling and potentially aversive odours and include handy tips on how owners can help their dogs to have a more positive bath time experience. We also launched our dental kit this year because research<sup>1,2</sup> shows that dental disease is one of the most common conditions affecting dogs and cats. Our hairball remedy and hip and joint tablets are also available to help owners keep their pets healthy.



### New information leaflets available for owners

A key function of the Companion Animals Department is to translate scientific and technical information into practical, easily accessible advice for owners to help meet their pets' welfare needs. Two new leaflets were developed in 2017: *Stray cats* and *Senior dogs* and a revision of the existing *When you're away...* leaflet.

The RSPCA receives many calls about [stray cats](#) every year. Often members of the public have been feeding these cats and consequently may have, usually unknowingly, taken on responsibility for these animals under the Animal Welfare Act 2006. Our leaflet is designed to advise carers of stray cats on how to meet their welfare needs to ensure they live happy and healthy lives.

As our pets approach their golden years, they may start exhibiting changes in their behaviour and may need some lifestyle alterations to help cope with advancing age. Our *Senior dogs* leaflet provides practical steps for owners to help their older dogs find life a little easier.

At some point, most pets are cared for by someone other than their owner. Our *When you're away...* leaflet was updated to reflect current good practice and includes 'top tips' sections for dogs, cats, rabbits and small animals, along with a 'holiday checklist' to help owners ensure their pets are well cared for in their absence.



**Dr Jane Tyson**  
Scientific Officer

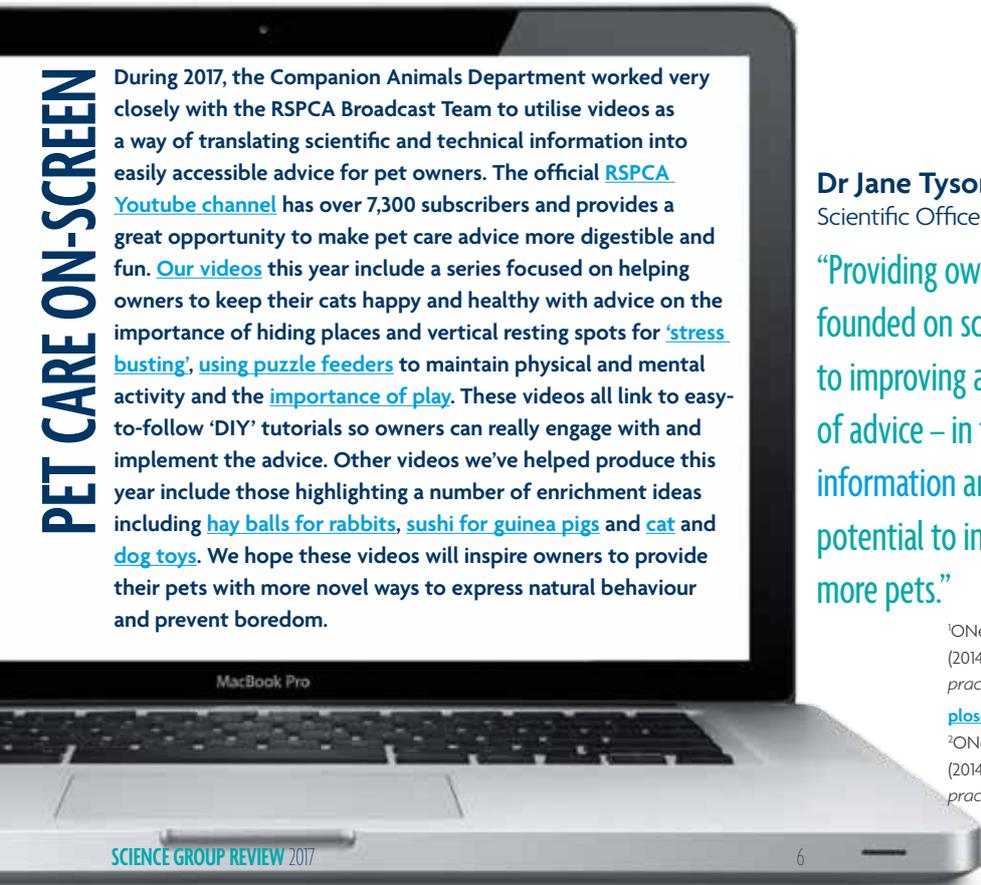
“Providing owners with easily accessible information founded on scientific evidence is an important step to improving animal welfare. As we increase our range of advice – in the form of printed literature, website information and via our YouTube channel – we have the potential to influence and enhance the lives of many more pets.”

<sup>1</sup>O'Neill, D.G., Church, D.B., McGreevy, P.D., Thomson, P.C., Brodbelt, D.C. (2014) Prevalence of disorders in dogs attending primary-care veterinary practices in England. *Plos One*. Available from: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0090501>

<sup>2</sup>O'Neill, D.G., Church, D.B., McGreevy, P.D., Thomson, P.C., Brodbelt, D.C. (2014) Prevalence of disorders in cats attending primary-care veterinary practices in England. *The Veterinary Journal*, 202(2): 286 - 291

### PET CARE ON-SCREEN

During 2017, the Companion Animals Department worked very closely with the RSPCA Broadcast Team to utilise videos as a way of translating scientific and technical information into easily accessible advice for pet owners. The official [RSPCA Youtube channel](#) has over 7,300 subscribers and provides a great opportunity to make pet care advice more digestible and fun. Our [videos](#) this year include a series focused on helping owners to keep their cats happy and healthy with advice on the importance of hiding places and vertical resting spots for 'stress busting', [using puzzle feeders](#) to maintain physical and mental activity and the [importance of play](#). These videos all link to easy-to-follow 'DIY' tutorials so owners can really engage with and implement the advice. Other videos we've helped produce this year include those highlighting a number of enrichment ideas including [hay balls for rabbits](#), [sushi for guinea pigs](#) and [cat and dog toys](#). We hope these videos will inspire owners to provide their pets with more novel ways to express natural behaviour and prevent boredom.



## WORKING TOGETHER TO HELP OTHERS IMPROVE WELFARE



### Delivering seminars to protect the welfare of kennelled dogs

The Animal Welfare Act 2006 places a legal duty of care on those who are responsible for animals to ensure their welfare needs are met, whether on a temporary or permanent basis. Each year, thousands of dogs are seized under various types of legislation and are required to be kennelled. For example, local authorities pick up stray dogs under the Environmental Protection Act 1990 and Police seize dogs under the Dangerous Dogs Act 1991. In addition, the hundreds of dogs used by the Armed Forces are kennelled. For many dogs, the kennelled environment can be challenging, exposing them to stressors including high noise levels and changes in predictability of routine. Furthermore, the way in which they are housed can restrict their ability to perform strongly motivated behaviour.

To help ensure practitioners have a good understanding of their legal responsibilities and are working in ways that protect and improve the welfare needs of dogs living in kennelled environments, the Companion Animals Department has provided a series of lectures and seminars. Over the past year, attendees have included handlers, trainers and instructors from the Royal Air Force Police, dog wardens, environmental health officers, kennels owners and Dog Legislation Officers.

### Educating future pet care workers

Representing the RSPCA in discussions with a wide range of stakeholders to promote companion animal behaviour and welfare is paramount to the work of the Companion Animals Department. For example, being given the opportunity to meet, educate and influence the next generation of employees in the pet industry is hugely valuable and important.

As in previous years, in 2017 we continued to give lectures to animal management students at several different colleges. Topics covered ranged from the work of the RSPCA Science Group and the wider RSPCA, to more specific subjects about companion animal behaviour and welfare along with how animal welfare organisations can work with the pet industry to improve animal welfare.

The high levels of attendance and engagement during the lectures and subsequent discussion sessions, together with the interest in the printed resources developed by the department – and provided for the students to study outside of the classroom – were encouraging indications of the value and impact of this work.

### Working with sister organisations

As well as participating in meetings with key stakeholders including other NGOs, industry, veterinary bodies, academics and MPs, an important area of our work is developing and maintaining relationships with sister organisations in order to share information and best practice.

In 2017 the Companion Animals Department met with RSPCA Western Australia to discuss some of the current animal welfare policy issues where there is overlap between the work of the two organisations, including puppy farming legislative reforms and recent developments in model licensing conditions. The selective breeding of dogs with exaggerated features is also a significant welfare issue in both the UK and in Australia, and we were approached this year by RSPCA Australia about their [‘Love is Blind’ campaign](#) which raises awareness of the health and welfare issues encountered by breeds with exaggerated features. We exchanged ideas on working with vets and industry to best influence dog breeding and bring about change in order to protect and promote the welfare of dogs selectively bred to look a certain way.

Protecting rabbit welfare is another example of where the department works with other organisations. The annual Rabbit Awareness Week is a collaborative initiative between the RSPCA, Burgess Pet Care, People’s Dispensary for Sick Animals, Rabbit Welfare Association and Fund, Blue Cross, Wood Green the Animals Charity and Agria Pet Insurance. Working together helps us reach a broader audience and share ideas to further increase engagement and improve rabbit welfare. As well as liaising with these partner organisations, the department coordinates RSPCA involvement in the week. This includes communicating with our branches, animal centres and hospitals, as well as ensuring coverage through press releases and on our social media channels.

The event continues to be successful and participation is steadily growing each year. For the first time, 2017 saw us actively encourage our charity shops to become involved and around 150 individual shops requested promotional material, designed to help create eye catching displays and promote rabbit welfare messaging to the wider community. This initiative is a great example both of inter-organisational collaboration and of ensuring that the activities, resources and messaging are tailored specifically for the target audience.



**Lisa Richards**  
Senior Scientific officer

“Sharing knowledge and experience with other organisations is important, and these relationships help ensure that the work we do to protect and improve welfare is based on the most up-to-date knowledge and good practice from around the world.”

## FOCUS ON GOVERNMENT

### Seeking change to breed specific legislation

In 2016 the RSPCA published *Breed Specific Legislation* – a technical report which launched a public campaign calling for an inquiry into its effectiveness in protecting public safety and dog welfare. Tens of thousands of people have signed the RSPCA's petition and a significant number of organisations from across the world agree that breed specific legislation (BSL) is ineffective in protecting public safety and results in the unnecessary suffering and euthanasia of many dogs. Like the RSPCA, they believe BSL should be repealed and issues surrounding human safety tackled using education and effective legislative measures that do not unnecessarily compromise dog welfare.

In 2017 we continued to engage with, and influence, key stakeholders and have spoken at several UK policy events. In October we presented to the London Assembly with Trevor Cooper, dog law expert and representing Battersea Dogs and Cats Home. We have had articles about the issue published in veterinary publications and a poster was co-presented at the Universities Federation for Animal Welfare annual conference in June.



**Dr Samantha Gaines**  
Head of Companion  
Animals Department

“For public safety and dog welfare to be effectively safeguarded, legislation and policies need to be evidence based. We have shown that there is a lack of evidence to support breed specific laws. Dog bites have continued to rise year on year and hundreds of dogs suffer and are needlessly euthanased on an annual basis. A review of this unfit and draconian law is long overdue”.

## TOPICAL WELFARE ISSUES



### Cat overpopulation

A number of charities are working together under the umbrella of the [Cat Population Control Group \(CPCG\)](#) to maximise the effectiveness of cat neutering through collaboration on research, joint projects and coordination of activities. The Companion Animals Department plays an essential and active part in the RSPCA's membership to CPCG which contributes to all strands of the group's work including influencing vets to make four month neutering the 'norm'. Moving away from the tradition of neutering at six months is key to controlling the number of unplanned litters since pregnancy can be seen in queens as young as four months old.

This year we represented the RSPCA as part of CPCG at both the [British Small Animal Veterinary Association \(BSAVA\) annual congress](#) and the [London Vet Show](#) to help promote four-month neutering amongst the veterinary community. A number of perceived negative consequences of earlier neutering have been identified as a barrier to veterinary behaviour change. Therefore, to help overcome this barrier and to encourage behaviour change, the department created a technical briefing using key up-to-date evidence-based research to show that neutering earlier than six months (and as early as seven weeks) has not been found to have negative developmental, health or behavioural consequences.



**Alice Potter**  
Scientific officer

“Speaking to veterinary professionals face-to-face is essential for helping us to understand what the perceived barriers are to implementing a policy to neuter owned cats at four months old. The insights we've gained from these in-depth conversations are extremely valuable for developing interventions to help us break down barriers and further support the veterinary community in making four-month neutering the 'norm'.”

### Urgent action for brachycephalic animals

In 2016 a cross-organisational Brachycephalic Working Group (BWG) was set up to improve the welfare of brachycephalic dogs. The BWG continued to meet throughout 2017 and now comprises animal welfare organisations, veterinary organisations, the Kennel Club, scientific and social researchers and relevant breed club representatives. As a BWG member, we contributed to the group's [Framework for a partnership approach to improving brachycephalic dog health and welfare](#), which was published in November 2017. More information about the aims, actions and membership of the BWG can be found [here](#).

Sadly, the issue is not limited to dogs and this year the department united with International Cat Care, vet Emma Milne and the Rabbit Welfare Association and Fund on a [joint press release](#) to highlight this. For example, Persian cats and Netherland Dwarf rabbits also face health and welfare problems as a result of selective breeding for brachycephaly.

### The puppy trade

The RSPCA has also seen a 132 percent increase in the number of calls from members of the public reporting concerns and complaints relating to the puppy trade over the last five years. Educating potential buyers and providing them with guidance on how to purchase puppies with the best chance of being happy and healthy is therefore an essential part of the Companion Animals Department's work. To mark National Pet month in April, the RSPCA partnered with [GoCompare](#) to raise awareness about irresponsible breeders and dealers and how to avoid them. This included a radio day where we took part in a large number of interviews for a range of national and regional stations, including Sky News and BBC Radio 4, a joint press release and social media activity.

We also worked closely with the RSPCA communications team on a mini 'puppy buying' campaign, which included developing a ['finding a good breeder' video](#) and an infographic on [choosing a happy, healthy puppy](#).

### Protecting the welfare of racing greyhounds

The RSPCA has long been concerned about the welfare of racing greyhounds. In recent years we have commissioned several research projects to ensure initiatives aimed at improving welfare are evidence-based and maximise welfare impact.

This year we have joined forces with the Dogs Trust to jointly fund a team at the University of Bristol to identify factors most affecting the welfare of populations of racing greyhounds. The results of this research are intended to inform and influence key policy makers within Government and industry so that greyhound welfare can be optimised. It will also help decision makers – often faced with limited funds – to identify which aspects of housing and management, if modified, are likely to have the greatest positive impact on dog welfare.

# Farm animals



The RSPCA works to improve the welfare of all farm animals at every stage of their lives. Hundreds of millions of animals are farmed in the UK each year.

The Society is concerned that the majority are reared, transported and slaughtered/killed in ways that do not meet their behavioural and physical needs, although legally permitted.

As outlined in this section, the Farm Animals Department works directly with a wide range of stakeholders to support and drive positive changes in practices and attitudes towards farm animal welfare in all sectors of the food chain, including via encouraging application of the RSPCA welfare standards for farm animals.

We also provide technical information, advice and support on farm animal issues internally within the RSPCA, including communications, campaigns, corporate engagement and fundraising. We give practical advice to field operations activities, including the RSPCA inspectorate, animal centres, and the RSPCA farm assurance and food labelling scheme, RSPCA Assured, whose farm, haulier and abattoir members are monitored by the department's Farm Livestock Officers to check compliance with the RSPCA's welfare standards.

## STANDARDS DEVELOPMENT

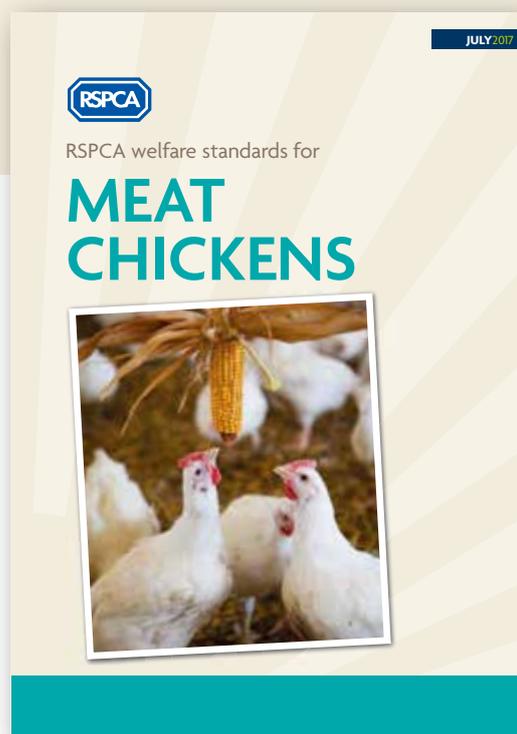
We have been developing [RSPCA welfare standards for farm animals](#) for over 20 years and now have 12 sets covering all the main species of farm animals reared in the UK. The welfare standards cover an animal's entire life from birth/hatching through to killing, aiming to represent good practice in all aspects of care and welfare. The standards, which are informed by both science and practical experience, go above and beyond typical industry practice and legislation in the UK in a number of key areas, and are primarily implemented through the RSPCA's own farm assurance and food labelling scheme, [RSPCA Assured](#). They also have a much wider impact on farm animal welfare, having influenced laws and government codes, and informing the production standards of a number of retailers, farm assurance schemes and commercial companies in the UK and overseas.

### RSPCA welfare standards for hatcheries (chicks, poults and ducklings)

An updated version of the [RSPCA welfare standards for hatcheries](#) was published in May 2017. The standards have been revised to only permit infrared beak trimming of turkey poults, ensuring strict requirements regarding the beak trimming process that are already in place for laying hen chicks are also applied to turkey poults.

Infrared technology has been shown to offer higher standards of welfare compared with conventional methods of beak trimming by improving the accuracy and reducing the risk of pain associated with the process. Beak trimming is against the principles of the RSPCA welfare standards. However, it is acknowledged that, at the current time, prohibiting beak trimming could result in a negative impact on welfare in some turkey and laying hen flocks due to injury caused by feather pecking. The standards relating to wild animal control have also been updated to mirror changes in the RSPCA welfare standards for laying hens, meat chickens and turkeys.

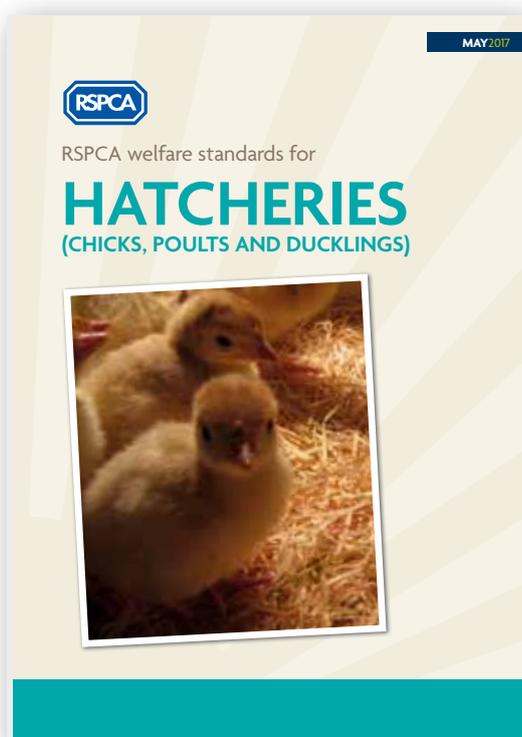
To ensure the standards have a positive impact on farm animal welfare, we use a robust and well-considered evidence base to inform their development. This involves sourcing and analysing scientific evidence, using practical experience and consulting with key specialist stakeholders in the food and farming industries and academia. We regularly review and revise our standards to help ensure they continue to be at the forefront of improving livestock welfare whilst still being achievable in terms of animal husbandry and commercial viability. Details of the revisions to the standards in 2017 are below.

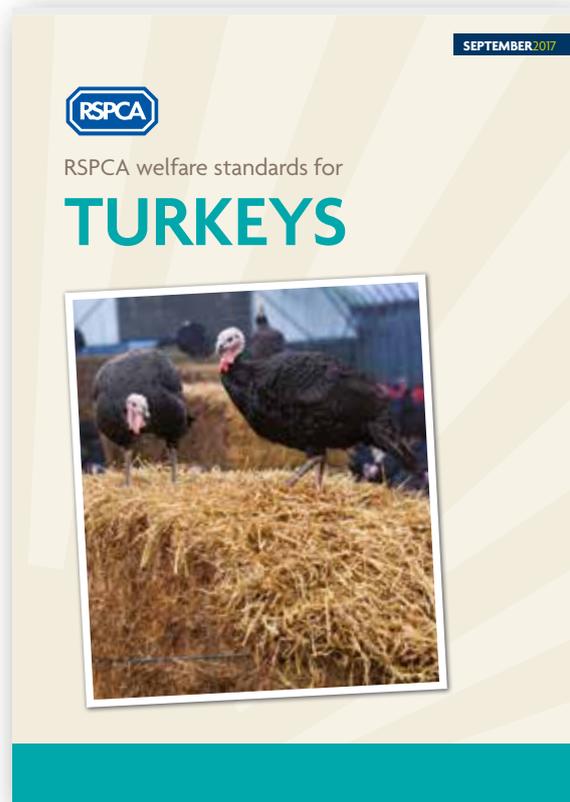
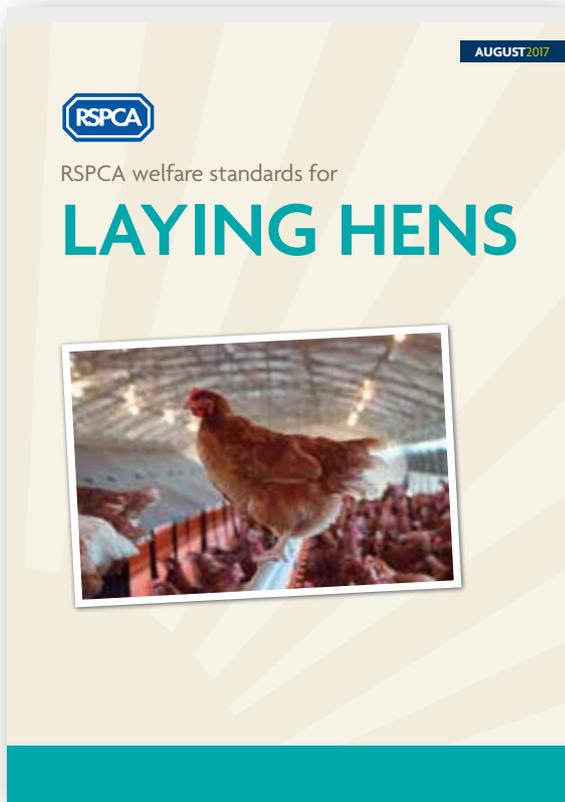


### RSPCA welfare standards for meat chickens

In July 2017, a fully revised version of the [RSPCA welfare standards for meat chickens](#) was published. The revised standards include a requirement for chickens not to have to travel more than three metres anywhere in the chicken house to reach water, and updates to standards relating to the size of light openings in chicken houses. We require windows in poultry sheds to allow for the provision of natural light, which is necessary for chickens to utilise their well developed colour vision to its full potential.

The requirements relating to slaughter have also been fully updated, including amendments to manual head-only electrical stunning and new standards concerning gas killing (see section overleaf: *New gas killing standards for meat chickens; laying hens; and turkeys*). A Welfare Outcome Assessment (WOA) protocol for meat chickens, as developed by [AssureWel](#), has also been included (see the *Welfare Outcome Assessment* section on page 15 for further information). The requirement for a WOA to take place on RSPCA Assured members' farms will be used to help monitor and improve chicken welfare on-farm, and scheme level data will be used to inform the development of future RSPCA welfare standards. Also included in this revision are new standards relating to the management of wild animals on the farm.





## RSPCA welfare standards for laying hens

The [RSPCA welfare standards for laying hens](#) were updated in 2017 and include new, more detailed requirements for raised perches. Raised (high level) perch provision allows hens to rest away from active birds undisturbed and satisfies their strong motivation to perch.

The amendments also include an updated requirement that environmental enrichment must now include some destructible items, such as straw bales, alfalfa or pecking blocks. Destructible items are thought to better satisfy pecking needs by providing the birds with more rewarding interactions, which can help reduce unwanted feather pecking behaviour. The new standards also require producers to monitor levels of feather loss in the flock on a monthly basis and, if required, take action to help prevent any further loss.

## RSPCA welfare standards for turkeys

In September 2017, an updated version of the [RSPCA welfare standards for turkeys](#) was published. The revised standards include a new requirement for non-mains water to be independently tested, thereby helping to better safeguard bird health, and updates to the standards relating to lighting.

The requirements relating to beak trimming have also been revised to reflect changes made in the updated version of the *RSPCA welfare standards for hatcheries* (see RSPCA welfare standards for hatcheries section on page 11). New standards concerning gas killing (see below) and updated standards regarding protecting livestock from other animals have also been included in this revision.

## New gas killing standards for meat chickens, laying hens and turkeys

In 2016, the Farm Animals Department considered the acceptability – from a welfare perspective – of carbon dioxide only gas for the killing of meat chickens, laying hens and turkeys. This involved a full review of relevant scientific literature and visits to see various carbon dioxide only gas killing systems in operation. The view was taken that carbon dioxide only gas killing could be considered acceptable from a welfare perspective, providing the systems used are operated and managed appropriately.

In 2017, following a consultation with relevant industry stakeholders and experts, the Farm Animals Department revised the RSPCA welfare standards relating to gas killing for meat chickens, laying hens and turkeys to permit the use of carbon dioxide only gas. The standards require that carbon dioxide gas does not exceed an average maximum concentration of 30 percent, and a maximum concentration of 33 percent, until birds have lost consciousness. A number of other detailed and strict requirements relating to the use of carbon dioxide only systems have been included to strengthen the standards in this important area.

## INDUSTRY ENGAGEMENT

### Research project examining the risk factors for Saprolegnia

The Farm Animals Department is part of the consortium board for a research project to help improve certain aspects of the welfare of farmed fish.

Led by Professor Pieter Van West of the University of Aberdeen and involving five fish farming companies, the Scottish Aquaculture Innovation Centre and the Scottish Salmon Producers Organisation, the project will examine risk factors for Saprolegnia – a fungus affecting farmed fish and causing increasing concern from both a welfare and production perspective.



### Broiler Welfare ‘Ask’

The RSPCA is joint signatory to a pan European initiative – the Broiler Welfare Ask – which calls for food businesses to commit to higher welfare chicken across their whole supply chain by 2026.

The Ask sets out requirements for the production of higher welfare chicken and reflects key issues for which the RSPCA has long advocated. All of these requirements are already covered within our own higher welfare standards. For example, the provision of natural light, bird enrichment items and perching, as well as requiring the use of higher welfare breeds and stipulating methods of slaughter that prohibit live bird shackling.

The Farm Animals Department, and others across the RSPCA, will be working together to encourage retailers and other food businesses to sign up to the Ask and take steps to improve chicken welfare across their supply base.



### Broiler research funding

During 2017, the Farm Animals Department secured funding of £282,000 to launch a campaign to both inform consumers about meat chicken production and encourage retailers and foodservice companies to adopt higher welfare sourcing policies.

A further £82,000 of funding will be used to provide valuable scientific evidence regarding an important aspect of meat chicken welfare. Using this new evidence and working with the RSPCA campaigns team to harness consumer support, our goal is to work with the whole chicken industry to bring about significant, long lasting positive change to the lives of meat chickens.

**Sophie Elwes**  
Senior Scientific Officer

“Over one billion meat chickens are killed in the UK every year. Most are reared under standards that do not adequately safeguard their welfare. The ‘Ask’ will ensure there is, for the first time, a consistent message across a broad range of key stakeholders on what higher welfare chicken production looks like. The generous funding we have received will allow us to communicate this message and create positive change for meat chicken welfare. Further, we hope now there is wide agreement and clarity on what the key issues are, it will encourage businesses to commit to standards that are supported by current welfare science.”



Alison Stollwood, Andrew Forsyth x 2/RSPCA Photolibrary

## New higher welfare broiler breeds

The RSPCA welfare standards for meat chickens require the welfare of chicken breeds to be assessed according to the RSPCA Broiler Breed Welfare Assessment Protocol. The protocol provides a standardised approach to ensure only breeds with an acceptable level of welfare are used under the standards.

Key welfare parameters that form part of assessment include, leg health, hock burn, foot pad burn and mortality. We have continued to work with the world's largest broiler genetics and breeding company who have developed three new higher welfare breeds of meat chicken during 2017: the Rambler Ranger, the Ranger Gold and the Ranger Classic. These breeds have all been assessed using the RSPCA Broiler Breed Welfare Assessment Protocol and have been considered acceptable for use under the RSPCA higher welfare standards for meat chickens.

## Working with the poultry equipment industry

During 2017, we worked closely with one of the world's largest poultry equipment manufacturers as they designed and developed a new laying hen housing system specifically to meet RSPCA updated higher welfare standards for laying hens.

The standards also contain a number of recommendations that we would like to see implemented and, where relevant, the manufacturer also took these into consideration within the system design. The new house design is currently being trialled with several laying hen flocks in the UK.

## Presentation at the World Conference on Farm Animal Welfare in China

In October 2017, a member of the Farm Animals Department gave a presentation on ruminant welfare at the World Conference on Farm Animal Welfare, which was held in Hangzhou, China. Addressed by China's Agriculture Vice Minister and attended by 400 scientists, academics and representatives of the livestock farming industry from China, the Asia Pacific region, the US and Europe, the conference was the largest and most significant farm animal welfare event held to date in China. It was particularly momentous in that the government, for the first time, affirmed at length its commitment to improved farm animal welfare as integral to the development of the country's sustainable agriculture strategy.

Our talk focused on the department's varied work to improve the welfare of farmed ruminant species, including the development and refinement of the RSPCA welfare standards for dairy cattle, beef cattle and sheep, our industry engagement and our involvement in AssureWel (see *Welfare Outcome Assessment* section opposite). The ruminant welfare session was coordinated and chaired by RSPCA International, in collaboration with the conference organisers, the International Cooperation Committee for Animal Welfare (ICCAW) and the UN's Food and Agriculture Organisation (FAO), and sought to bring together experts from across the world to exchange knowledge about key welfare issues in cattle, sheep and goats.



# WELFARE OUTCOME ASSESSMENT



**AssureWel** was a collaborative project between the RSPCA, Soil Association and University of Bristol. It started in 2010 and its primary aim was to improve farm animal welfare via the development of welfare outcome assessment (WOA) protocols for use in farm assurance scheme audits.

Prior to AssureWel, scheme audits focused primarily on welfare 'inputs', which are the resources farmers provide to their animals, such as food, water, space and light. Although it is important to assess welfare inputs, scheme audits also need to include an assessment of the animals' welfare 'outcomes', which are characteristics of the animals themselves, such as their health and behaviour, as this type of assessment provides a more direct and therefore valid assessment of the level of welfare being achieved on a farm.

AssureWel set out to develop WOA protocols for laying hens, dairy cattle, pigs, meat chickens, beef cattle and sheep, and to implement these protocols via the on-farm audits undertaken by RSPCA Assured – the RSPCA's farm assurance and food labelling scheme – and Soil Association Certification, as well as other schemes, such as Red Tractor Assurance.

## New protocols for meat chickens, beef cattle and sheep

During 2017, AssureWel WOA protocols for meat chickens, beef cattle and sheep were finalised, to complement protocols that had previously been developed for laying hens, pigs and dairy cattle.

These were developed and refined during the latter stages of the AssureWel project on the basis of a review of the existing research, extensive consultation with researchers, veterinarians and representatives from the farming industry, and following both small and large scale on-farm pilot studies. RSPCA Assured assessors were trained to use the developed protocols and now undertake WOAs as part of their routine audits of all RSPCA Assured meat chicken, beef cattle and sheep farms. The information collected during these assessments will be used to help understand the effect the RSPCA welfare standards are having on animal welfare on scheme farms and facilitate the process of continuous improvement.

## AssureWel International 2017

The annual **AssureWel International meeting** was held in September 2017 in West Sussex. Hosted by RSPCA Assured, it brought together a number of international farm assurance schemes, including from the Netherlands and France, and provided the opportunity to share information and discuss issues, challenges and experiences concerning welfare assurance and assessment.

### Dr Sophie Collins

Scientific Officer – Welfare Assessment/Ruminants

**“We believe all farm assurance schemes should undertake welfare outcome assessments as part of their routine audits, as it strengthens the robustness of the audit process and allows them to better assess animal welfare on their members' farms.”**

## RESOURCES

### Providing up-to-date information

The Farm Animals Department produces various technical resources, including detailed information sheets, on particular farm animal species, issues and topics.

These resources – which are informed by a robust evidence base including scientific research – aim to raise awareness of the facts relating to various aspects of livestock production and to highlight welfare concerns, potential/proven solutions and the RSPCA's position on key issues affecting the wellbeing of the various species. In 2017, we revised our information sheet concerning the [welfare of dairy cattle](#), produced a new information sheet regarding [antimicrobial resistance and farm animal welfare](#), and developed two position statements: one on [the use of individual hutches for calves](#), and one concerning [grazing for dairy cattle](#).

### Consultancy worldwide

A range of stakeholders in the UK and beyond are increasingly tapping into our unique knowledge, experience and expertise.

During 2017 we undertook consultancy work for several companies, including food retailers, restaurant chains, TV production companies and clothing retailers, providing information, advice and recommendations relating to general and specific farm animal welfare issues. This work included reviewing company policies and animal welfare strategies and reviewing and critiquing welfare standards for various species. These activities provided the opportunity to influence the welfare of potentially huge numbers of animals across the world as well as enabling us to raise awareness and change attitudes and policies on animal welfare within some extremely powerful and influential companies and organisations.

### Putting the message across

The Farm Animals Department has been involved in many media interviews throughout 2017 – to help inform and educate on a range of farm animal welfare related issues and to influence the purchasing decisions of consumers towards selecting higher welfare food options.

Most notably during the year, members of the department gave interviews to the national press – including The Guardian, The Times and the Daily Telegraph – and to radio, as well as appearing on TV, including a live interview on ITV's This Morning programme.





# Research animals

Animals are used for many different purposes in research and testing, and each area of use raises specific ethical, animal welfare and scientific issues. The RSPCA adopts a constructive, practical approach, to develop more effective processes of ethical review and fuller implementation of the 3Rs\*. Our primary aim is the replacement of animal experiments with humane alternatives. Until this can be

achieved, we work to help ensure that the minimum numbers of animals are used and that suffering is reduced or, ideally, avoided altogether. In addition to the specific initiatives highlighted in this section, we have a high level of ongoing liaison with those involved in the regulation, care and use of animals in science, including senior officials within the European Commission, and the Home Office Animals in Science Regulation Unit.

\*The 3Rs are: replacement of animals with humane alternatives, reductions in animal numbers to the minimum necessary to answer the scientific question, and refinement of husbandry and procedures to reduce suffering and improve welfare throughout the animals' lives.

## PROMOTING EFFECTIVE ETHICAL REVIEW

Helping to ensure robust [ethical review](#) of animal use is a critically important area of work for the RSPCA. The Research Animals Department has a number of initiatives that support Animal Welfare and Ethical Review Bodies ([AWERBs](#)) – local committees that aim to ensure all use of animals at their respective establishments is carefully considered and justified, and that animals are replaced with humane alternatives wherever possible, animal numbers and suffering are minimised, and welfare is improved.

AWERBs have important responsibilities with respect to developing and implementing each establishment's local 'Culture of Care' and providing opportunities for staff with different roles to raise and discuss ethical issues.

## Working together

A second AWERB-UK meeting jointly convened by RSPCA, Laboratory Animal Science Association ([LASA](#)), Laboratory Animals Veterinary Association ([LAVA](#)) and the Institute of Animal Technology ([IAT](#)) was held in London in June 2017, with a theme of 'Putting Ethics into the AWERB', because AWERB members have consistently reported difficulty identifying and considering ethical issues, both during project review and in relation to other tasks.

This meeting aimed to assist – with presentations exploring the interpretation of 'ethics' from different perspectives within science and with workshops – on topics that the organising societies felt presented their members with difficult ethical questions. In total, 96 participants attended, representing a range of AWERB members including animal technologists, project licence holders, Named Persons, lay and independent members.

The presentations from the day are available [online](#), with reports from the workshops addressing how AWERBs might deal with ethical issues that arise from projects that have already been funded or are being conducted overseas; research into diseases affecting only a small percentage of the population; whether some species are 'special'; use of new technologies; and the emotional wellbeing of staff involved in euthanasing animals. The meeting inspired regional events organised by groups of AWERBs, and the Research Animals Department is continuing to promote wider consideration of ethical issues in addition to the 3Rs throughout all of our work areas.

We also used AWERB-UK to launch new RSPCA/LASA guidance on [developing induction materials for AWERB members](#). This freely available, online document provides examples of induction activities for new AWERB members, sets out a self-assessment training tool, and lists useful information about the AWERB. The guidance is intended to be adapted for individual establishments, so that they can devise an induction process reflecting their own local practice and culture of care.



**Dr Penny Hawkins** –  
Head of RSPCA Research Animals Department

“We increased our focus on practical ethics in 2017, inspiring ethics committee members to question whether, as well as how, animals are used in research.”

## Lay Members Forum

The annual RSPCA Lay Members Forum, held in London in December, was attended by over 70 participants from AWERBs within industry and academia. Presentations included: recognising, alleviating and preventing boredom and distress in animals (both can cause significant suffering); assessing the Culture of Care; good practice for addressing all the AWERB's tasks; ethical dilemmas in trauma research; and new findings on environmental enrichment and pain relief for zebrafish.

A discussion session on the Non Technical Summary section of the project licence application form encouraged lay members to help to ensure these are accessible to lay readers and clearly set out harms and benefits of each study.



# FOCUS ON SEVERE SUFFERING

Over the last few years we have been working with the scientific community to challenge them to reduce or avoid experimental procedures that can cause severe suffering to laboratory animals. We made great progress in 2017 on three key fronts:

- **Outreach** – we convened our second international ‘focus on severe suffering’ meeting.
- **Tackling specific ‘models’ and procedures with the potential for severe suffering, including spinal cord injury (see below: ‘Expert Working Groups’)**
- **General guidance** – we held a meeting on ‘predicting and avoiding mortality’ in laboratory animals.
- **We began work on a revised and updated ‘focus on severe suffering’ website.**

## RSPCA international meeting – focus on severe suffering

Following very positive feedback after our first *Focus on severe suffering* event held in Brussels in 2016, we were very pleased to hold a follow-up two day conference in October 2017 in Berlin, in association with the Max Delbrück Centre for Molecular Medicine in the Helmholtz Association. 120 delegates from 16 countries, including regulators, scientists, veterinarians and animal technicians attended to share ideas and promote new approaches for reducing and avoiding ‘severe’ suffering.

The first day focused on case studies in which severe suffering had been successfully reduced, in areas including haemophilia, multiple sclerosis and bone healing. The second day provided an opportunity for speakers to discuss study areas where challenges and obstacles to reduce or avoid severe suffering still remain, including cryoinjury in zebrafish, regenerative medicine therapies for kidney injuries in mice, and trauma models in rats.

The event also included presentations on the harm-benefit assessment; considering prospective severity of procedures; communicating with the public about harms and severe suffering; and reviewing the role of Animal Welfare Bodies, National Committees and others in sharing good practice.

A summary report from the meeting is [available](#) and requests for the presentations from the event can be made via email to: [research.animals@rspca.org.uk](mailto:research.animals@rspca.org.uk).

## Expert working groups

Over the last few years, we have produced a series of expert working group reports which provide guidance for researchers and animal care staff to enable them to reduce suffering of animals used to study epilepsy, multiple sclerosis, sepsis and rheumatoid arthritis. These reports are well received by the scientific community and are widely read and cited. Our latest expert working group looks at ways to reduce suffering of animals used to study spinal cord injury. The group was assembled in 2016 and we have had two meetings to date. The report should be ready for publication in early 2018.

**Dr Elliot Lilley** –  
Senior scientific officer

“Our second international ‘focus on severe suffering’ meeting was a great success – maintaining momentum of our efforts to encourage the scientific community to reduce or avoid experimental procedures that cause severe suffering to laboratory animals.”



## Avoiding mortality

The Research Animals Department held a workshop on avoiding mortality in research animals, jointly convened with the IAT, LASA and LAVA. This topic was chosen to further our joint work on severe suffering, because severity is assumed to be ‘severe’ when animals are found dead and, although this may not always be the case, there is a high risk that animals may suffer severely if it has not been possible to implement humane endpoints.

The workshop – held in September – was hosted by the University of Cambridge. Establishing the fundamental premise that zero mortality should be the goal, and there should never be an ‘acceptable’ level, participants explained how they had successfully reduced and avoided mortality within different research fields, purposes and species.

Good practice was shared with respect to monitoring animals more effectively; conducting in-depth reviews and analyses of records and data to identify better indicators to avoid mortality; and challenging regulatory requirements for mortality data within toxicology. A workshop report with practical guidance and action points will be produced early in 2018.

## Website update

The launch of the *Focus on severe suffering* website in October 2015 received excellent traffic, and we update the resource each quarter with new or revised material.

In 2016 we asked key stakeholders to review the resource and make suggestions for improvements. During 2017 we have been acting on these suggestions and will launch a new web resource in 2018.

## ON THE INTERNATIONAL STAGE IN 2017

A key element of our outreach and impact is via our work with colleagues in RSPCA International, Eurogroup for Animals and other organisations to promote robust regulation of animal experiments, effective ethical review and fuller implementation of the 3Rs internationally.

■ In June we accepted an invitation from the Thai Association for Laboratory Animal Science to participate in the 11th TALAS International Symposium in Bangkok. We delivered a keynote presentation on understanding animals' behaviours and welfare needs, and a session focusing on making decisions about whether and how animals are used in research, incorporating consideration of 'harms' and 'benefits'.

■ In August, we were asked to input into a training event held at the National Pingtung University of Science and Technology, for members of Institutional Animal Care and Use Committees (IACUCs) from across Taiwan and the wider Pacific Rim region. We provided training on how effective regulation and ethical review of animal research could best be achieved and supported. Prior to this training conference, we also gave a special lecture on the harm-benefit assessment to researchers and students at the National Medical Defense Center in Taipei.

■ Every three years, the [World Congress on Alternatives and Animal Use in the Life Sciences](#) brings together around 1,000 people from government, regulatory bodies, industry, academia, and animal welfare and protection. We accepted an invitation and funding from the organisers to attend the 10th event in Seattle in August, and talk about the RSPCA's work on issues relating to animal research. We also gratefully received a bursary from the UK Laboratory Animal Science Association to allow a second representative from the Research Animals Department to attend and update delegates on our pioneering work in reducing and avoiding severe suffering (see [Focus on severe suffering](#) section opposite).



■ Our longstanding liaison with the Chinese Association for Laboratory Animal Science (CALAS) led to us delivering a satellite workshop on recognising and alleviating animal suffering, along with a plenary presentation on the importance of ethical reporting standards, at the CALAS Annual Congress in Chengdu in September.

■ Building on a relationship formed with the [South African Association for Laboratory Animal Sciences \(SAALAS\)](#) with our input into a 2015 conference on education and training, we were delighted in November 2017 to be able to participate in a follow-up meeting held near Cape Town. In recent years we have been working with SAALAS to help identify and meet the training needs for members of Animal Ethics Committees – the outcome of this work was presented at this event. We also delivered a presentation to the 143 conference delegates present from 23 countries, on achieving and promoting a good culture of care within research establishments.

■ We continue to work to achieve fuller implementation of the requirements of European Directive 2010/63/EU on the protection of animals used in scientific purposes, and faster development and wider uptake of alternative methods across the EU. Most of this activity in this regard is via our membership of [Eurogroup for Animals](#), with whom we liaise closely, and provide the Chair for its Research Animals Working Group.

If you are based outside of the UK and are interested in us working with you to provide specific training or conference input in your region, please contact us to discuss your requirements and opportunities for collaboration. Please email us at: [research.animals@rspca.org.uk](mailto:research.animals@rspca.org.uk)



**Barney Reed** –  
Senior Scientific Manager

“Our high level of collaboration with international partners has enabled us to directly promote the importance of effective regulation, ethical review and the 3Rs to whole new audiences of scientists, regulators and animal care staff”

## ASPECTS OF UK REGULATION

Throughout the year we have continued to liaise, and discuss key aspects of regulation with the Home Office [Animals in Science Regulation Unit \(ASRU\)](#). We attend regular stakeholder meetings (three in 2017) with ASRU as a member of the Animal Welfare Stakeholder Group.

With Brexit remaining high on the agenda, we continue to monitor developments to ensure that there is no dilution or weakening of the UK's regulatory controls – or standards of animal welfare – as the UK leaves the European Union. This has included working with a range of other animal welfare and protection organisations to produce a [report](#) identifying issues of concern, as well as potential opportunities for achieving improvements in UK animal welfare post-Brexit, including for animals used in research and testing.

### Focus on... wild animals used in research

In October 2017, in conjunction with the Animal and Plant Health Agency (APHA), we convened the third *Welfare of wild animals used in scientific procedures meeting*.

Over 50 delegates involved in regulation, or the use or care of wild animals – from seabirds to squirrels – attended. They heard presentations and discussed animal welfare, ethical and scientific issues relating to the capture, trapping, handling, tagging and post-release monitoring of animals in the wild, as well as refining housing and care of wild animals used for research studies in captivity.



### Animals in Science Committee

The Research Animals Department's Barney Reed continued to participate (in a personal capacity) as an appointed member of the [Animals in Science Committee \(ASC\)](#) – the public body established in the UK to provide impartial, balanced and objective advice to the Secretary of State on all matters concerning the use of animals in scientific procedures. Dr Penny Hawkins (Head of the Research Animals Department), who had previously served as a full member of the ASC, was co-opted back onto its AWERB Sub-committee until March 2018.

### Office of Science and Technology genomics and gene editing consultation

The advent of new 'gene editing' technology, means that manipulating the genes of animals becomes more straightforward and accessible. Discussion about the ethics of the use of this technology, the impact on animal welfare and the regulation of its use is now vital, and we and other RSPCA Science Group departments [responded](#) to the House of Commons Science and Technology Committee Inquiry in February, detailing our concerns about its use in animals.

### Focus on... rodents and rabbits

The 24th annual [Rodent Welfare Group Meeting](#), convened jointly with the Universities Federation for Animal Welfare (UFAW), was held in Surrey in November. A special session on the welfare needs of breeding rabbit does included talks on the behaviour of rabbit does and their kits in the wild, how the Home Office expects housing in the laboratory to facilitate these, and efforts made by establishments to refine rabbit housing. Rodent-related talks featured the *NC3Rs Year of Lab Rodent Welfare*, reducing stereotypes in gerbils, group housing rats with external devices, positive emotions in rats and good practice for housing male mice. A report of the meeting will be submitted to the journal *Animal Technology and Welfare*.

Our collaborators reported on good practice for housing male mice – an RSPCA-funded project initiated in response to ongoing debate on the issue. It is widely recommended to group house male laboratory mice because they are 'social animals', but male mice do not naturally share territories and aggression can cause serious pain and distress. Even without aggression, not all animals within a group will be in a state of positive welfare, depending on their position in the hierarchy. An essential question is whether it is in the best welfare interests of male mice to be group- or singly-housed. We surveyed current practice for housing male mice and funded a literature review on the pros and cons of single and group housing, through a researcher at the University of Bristol. This has been published in the journal *Animals*, including recommendations to help male mice 'live together better' and outstanding research questions.

## 16+ education in ethical human-animal interactions

At the beginning of 2017, the Government's concern that the UK is facing STEM (Science, Technology, Engineering and Mathematics) skills shortages, led to an inquiry into how these gaps may be addressed. We responded to the House of Commons Science and Technology Committee Inquiry in January calling for ethical decision-making around whether and how animals are used; the 3Rs (replacement, refinement and reduction); and animal welfare; to be included in the education and training programmes of all young life scientists.

Throughout this year we have been building on our relationships with the university community to identify what we can do to help future bioscientists to think more critically and reflectively about the potential use of animals in their research. We are now helping doctoral schools at universities across the country to develop and deliver courses in animal welfare, ethics and humane science for students who are using, or may go on to use, animals in their work.

In November, we delivered a one day workshop for postgraduate students and young researchers at [Sussex University Doctoral School](#). It was an opportunity for young scientists to reflect on their own opinions and practice in humane experimentation. It was a day of active discussion on current issues of concern with respect to the life sciences, not just limited to ethics and animal welfare. In 2018 we hope to run similar events at other doctoral schools in England and Wales.

2017 also saw the [British Pharmacological Society](#) ask us for input in the 'Consultation of the future of education, training and engagement for the use of animals in research'. Our influence on the outcome ensured great progress – including the teaching of animal welfare and ethics and replacing the use of animals in undergraduate education with humane alternatives.

We were also invited to participate in the [National Land Based College's](#) working group to help develop new 'T level' qualifications and apprenticeships for students wanting to pursue a career in the land based sector. In November we and colleagues from the Farm Animals Department attended a discussion meeting with colleges, accrediting bodies and industry representatives at Defra with the Secretary of State.

Throughout the course of the year, in conjunction with staff across other departments, we have also delivered sessions at numerous further and higher education establishments. Subjects requested by tutors have included RSPCA campaigns, animal welfare science and legislation, guidelines, standards, assessments and outcomes, the ethics of human-animal interactions, and careers involving animals.

■ In August, we joined a new international panel of experts set up by the Animals in Science Policy Institute. Participating in a meeting in Vancouver in a 'virtual' capacity, meant that we could talk to our international partners from Canada, USA, and New Zealand without leaving the UK. The aim of this new working group is to replace the dissection of animals in schools across the United States and Canada with humane alternatives, and we will play an active role in this project's future development.



**Juliet Dukes –**  
Senior Scientific Officer

“Our work with young bioscientists and their tutors empowers them to challenge current approaches and make ethical decisions that improve the lives of animals and the quality of science.”



# Wildlife



Despite growing public concern, the appreciation of the welfare needs of wild animals is often inadequate. The RSPCA's Wildlife Department seeks to improve the welfare of both captive and free-living wild animals through research, promoting awareness of the welfare requirements of wild animals, and an emphasis on a precautionary and humane approach to human interactions with wild animals.

Our work is wide ranging and covers a huge diversity of different species in a variety of situations. It includes: meeting with government officials and politicians to encourage improvements in wildlife laws and policies (such as banning wild animals in circuses); responding to government consultations (including a

review of animal activities licensing in England); working with universities and other institutions involved in the study of wild animals; and collaborating with other organisations to end some of the more inhumane aspects of our relationship with wild animals (such as working to stop the sale of glue traps).

The RSPCA has four wildlife centres that admit, rehabilitate and release a wide range of species every year. During 2017 the wildlife centres took in 18,659 injured, sick or orphaned wild animals for rehabilitation – 7,189 of which were able to be successfully released. These admissions consisted mainly of birds (14,029) and mammals (4,565) with intake peaking between May and August.

# PERSPECTIVES ON HUMAN-WILDLIFE CONFLICTS

## Developing principles for ethical wildlife control

Human-wildlife conflicts are commonly addressed by excluding, relocating, or lethally controlling animals with the goal of preserving public health and safety, protecting property, or conserving other valued wildlife or livestock. However, declining wildlife populations, a lack of efficacy of control methods in achieving desired outcomes, poor consideration for the welfare of both target and non-target species, and changes in how people value animals have triggered widespread acknowledgment of the need for ethical and evidence-based approaches to managing such conflicts.

The RSPCA's Wildlife Department was invited to contribute to a panel of 20 experts convened at a two-day workshop that explored international perspectives on, and experiences with, human-wildlife conflicts to develop principles for ethical wildlife control.

The seven agreed principles are that efforts to control wildlife should:

- 1) begin, wherever possible, by altering the human practices that cause human-wildlife conflict and by developing a culture of coexistence
- 2) be justified by evidence that significant harms are being caused to people, property, livelihoods, ecosystems, and/or other animals
- 3) have measurable outcome-based objectives that are clear, achievable, monitored, and adaptive
- 4) predictably minimize animal welfare harms to the fewest number of animals
- 5) be informed by community values as well as scientific, technical, and practical information
- 6) be integrated into plans for systematic long-term management
- 7) be based on the specifics of the situation rather than negative labels (pest, overabundant) applied to the target species.

These principles were published in *Conservation Biology*<sup>1</sup> in 2017 and the authors recommend that these principles be used to guide the development of international, national, and local standards and control decisions and implementation.

### Adam Grogan

Head of Wildlife Department

“The publication of the paper on principles for ethical wildlife control was a milestone in providing a clear process that can help to resolve many of the conflicts that occur between wild animals and people.”



## Living with wildlife

The provision of sound, scientifically supported information and advice is a critical aspect of the Wildlife Department's work, particularly with regards to engaging the public on issues surrounding wild animals with which they regularly come in contact.

As part of this ongoing commitment the department produces a series of *Living with wildlife* informational guides. These provide guidance to members of the public living alongside wild animals, promoting non-harmful, humane deterrents in situations where wildlife may be perceived as a problem. In addition to problem-management advice, they also cover a range of topics from the ecology and natural behaviour of the species in question, to tailored advice on how people can encourage wildlife into their gardens and what to do if they find a wild animal they think is in need. Relevant, up-to-date information on legislation is also included, ensuring readers understand how to act within the law at all times.

This series already includes guides for badgers, foxes, deer, grey squirrels, hedgehogs, moles, bats, mice and rats, reptiles, amphibians, nesting birds, pigeons, gulls, and Canada geese; providing practical and scientific information supported by the latest research. In 2017, we extended the series to cover a number of species about which we are regularly contacted, due to the apparent problems they cause. The new *Living with corvids* guide covers jackdaws, crows, magpies, rooks and jays, while *Living with pond predators* includes mammals, such as the otter and mink, as well as birds, such as herons and cormorants. A third informational guide, for rabbits and hares has also been produced.



<sup>1</sup>Dubois et al; 2017; *International consensus principles for ethical wildlife control*; Conservation Biology, Volume 31, No. 4, 753–760; <http://onlinelibrary.wiley.com/doi/10.1111/cobi.12896/abstract>

## Research into beginner reptile owner motivation

As reptiles appear to have increased in popularity as pets, there are concerns about the welfare problems suffered by these animals due to lack of understanding – especially amongst novice owners – of their needs and how to meet them. The Wildlife Department works to address these problems, and during 2016 the RSPCA commissioned independent research to better understand beginner owners of pet reptiles, in order to improve the welfare of reptiles kept as pets.

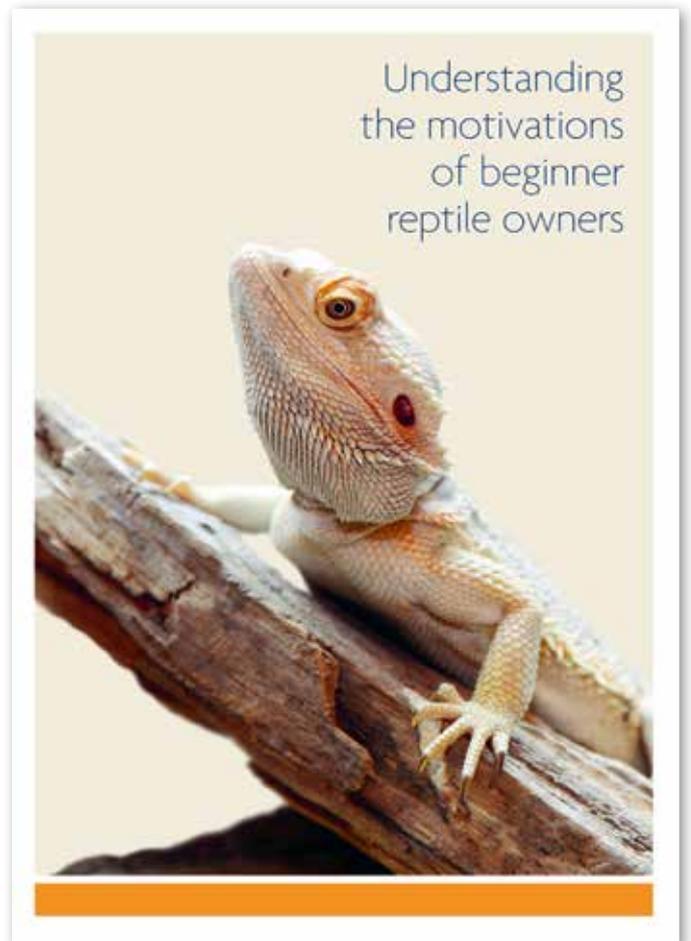
This research was carried out in response to the 71 percent rise in the total number of calls to the RSPCA, over five years, relating to neglected, abandoned and cruelly-treated reptiles (4,020 in 2011 to 6,888 in 2016)<sup>1</sup>. We believe that these problems are often not caused deliberately but result from a lack of understanding.

Caring for a reptile can be daunting for a beginner owner; in many cases they may not even realise that their reptile is being neglected, as they do not fully understand the animal's needs, or how to recognise when they are ill, underweight or overweight. An owner may struggle to navigate care information online, unable to tell the difference between poor and good quality information.

Some shops selling reptiles offer excellent advice to owners, but others lack reliable care information provided at the point of sale<sup>2,3</sup>. Many species require specialised environments which can be difficult to provide in household settings<sup>4</sup> and a lack of understanding of a species' natural behaviour and environment can result in significant health and welfare problems<sup>3</sup>.

We aim to use this research, the results of which have been published in our report *Understanding the motivations of beginner reptile owners*, to reach out to novice reptile owners with accessible, tailored information that will help them make an informed decision about choosing, owning and caring for a reptile properly. This will both improve the welfare of the reptile(s) they keep and, hopefully, reduce the chances of relinquishment.

There is a need to work collaboratively across stakeholders (including government, trade groups, vets and animal welfare organisations) to ensure all reptiles being kept as pets are cared for responsibly.



**Nicola White**

Senior Scientific Officer, Exotics and Wildlife Trade

“Caring for a reptile can be daunting for a beginner owner; in many cases they may not even realise that their reptile is being neglected, as they do not fully understand the animal's needs, or how to recognise when they are ill, underweight or overweight.”

<sup>1</sup>RSPCA (2017) *TAILS incident and collection data reports, run March 2017*. Incident data includes unconfirmed and confirmed animals, collections data and number of animals within incidents includes confirmed animals only.

<sup>2</sup>RSPCA (2011) *The welfare state: five years measuring animal welfare in the UK 2005–2009*.

<sup>3</sup>Williams, D.L. and Jackson, R. (2016) *Availability of information on reptile health and welfare from stores selling reptiles*. *Open Journal of Veterinary Medicine*, 6, 59-679.

<sup>4</sup>Schuppli, C.A., Fraser, D. and Bacon, H.J. (2014) *Welfare of non-traditional pets*. *Rev Sci Tech Off Int Epiz* 33 (1) 221-231.

## WILDLIFE CASUALTIES

The RSPCA Wildlife Centres continue to strive for a better understanding of the casualties in their care. Numerous projects have been undertaken to investigate the treatment of wild animal and post-release survival of rehabilitated casualties using techniques such as radio tracking and ringing of birds and bats. A summary of this research can be found in the *Veterinary Record* doi:10.1136/vr.101139.



### RSPCA EAST WINCH WILDLIFE CENTRE

For many years the RSPCA didn't really see any seals entangled in netting, but in recent years there has been a marked increase. Initially, only young pups were being admitted with litter-related issues, but we are receiving more and more reports of adult seals suffering from entanglement with litter; including monofilament line or netting, rope netting, plastic rings and even frisbees. One of the major problems we face is catching these adult seals – not an easy task for such a large animal that is able to retreat back to the sea if feeling threatened.

The Sea Mammal Research Unit (SMRU) in St Andrews, regularly catch fit and healthy adult grey seals to fit satellite tags and study their movement. Since working on a common seal tagging project in 2004<sup>1</sup>, the RSPCA have maintained a good relationship with the SMRU and in 2015 Alison Charles, RSPCA East Winch Wildlife Centre Manager, joined them to learn how they catch these fit, adult grey seals.

We now look to catch adult grey seals post breeding season, when they are moulting and a little slower. This also helps to avoid disturbing the breeding colony of greys on the beach, as this may cause mothers to abandon their pups. We wait until the pups and females have left the beach and the males slow down and moult, which is normally April-May. We have also produced several special seal catching nets, based on SMRU's specification.

The resulting 'seal catching team' caught their first adult in May 2016 on Horsey beach, Norfolk. However, the distance between East Winch and the beaches in question (around an hour and a half travel) means that seals often leave the beach by the time staff arrive. The solution has been a training course for a local seal group – *Friends of Horsey Seals* – who are at these beaches regularly and have since successfully managed to catch a number of netted adult seals.

<sup>1</sup>Morrison C, Sparling C, Sadler L, Charles A, Sharples R, McConnell B (2011) Post-release dive ability in rehabilitated harbor seals. *Marine Mammal Science*. DOI: 10.1111/j.1748-7692.2011.00510.x.



## RSPCA WEST HATCH WILDLIFE CENTRE

**In September 2017, 300 Manx shearwaters (*Puffinus puffinus*), mainly from South Wales, were admitted at RSPCA West Hatch Wildlife Centre, having been grounded during a period of stormy weather. Presenting problems included injuries and soiled feathers from being blown onto beaches – it was necessary to wash each bird prior to release, to ensure waterproofing.**

During the period of stabilization prior to washing, 32 of the birds developed blisters on the webbing of their feet – symptoms of the condition puffinosis; this is seen mainly in Manx shearwaters, but also – more sporadically – in gulls. The lesions often covered the full extent of the foot, occasionally being found on the unfeathered region of the leg. Affected birds appeared to be in considerable pain when walking, using their wings for support. As the blistered areas would burst prior to healing, releasing serous fluid which would affect the waterproofing of the feathers, it was not possible to wash affected birds until the lesions had resolved.

Puffinosis occurs in Manx shearwaters throughout the breeding season, although it is most apparent during late August and September, when it occurs as an epizootic in fledglings, with over 75 percent of birds being affected. Typical presentation signs are blisters on the feet, conjunctivitis and ‘extensor spasm’ of the legs, following an incubation period of 3-7 days. The 32 birds that presented with characteristic blisters on their feet, did so between four and five days after

admission, indicating that these birds were likely incubating the disease on admission. All 32 birds were confirmed with puffinosis, despite the fact that none of them showed signs of conjunctivitis or ‘extensor spasm.’

The aetiology of puffinosis is still under debate, although it has been suggested that a coronavirus may be involved, possibly spread by Trombiculid (harvest) mites. It is thought that the disease may be passed indirectly from bird to bird by contamination of soil and stones with virus from burst blisters or via direct contact. Affected gulls, which predate fledgling birds, may also act as a source of infection.

Mortality rates associated with puffinosis in wild birds have been reported at over 75 percent. However, of the 32 birds confirmed to have puffinosis, 16 were ultimately released, all of which were aged as ‘recently-fledged’ by British Trust for Ornithology (BTO) ringers. The remainder were euthanased on welfare grounds, for various reasons; not all directly attributable to puffinosis. The stress of captivity may have caused them to be immune-compromised; however, mortality rates were lower than those reported in the wild, potentially as a result of the nursing support received by these birds.

Of the 300 birds admitted, 223 birds were successfully released, all of which were aged by BTO ringers; showing 206 of those released were ‘recently-fledged’.

Nuttall, PA & Harrap, KA (1982) *Isolation of a Coronavirus During Studies on Puffinosis, a Disease of the Manx Shearwater (*Puffinus puffinus*)* Archives of Virology 73, 1-13

Klaussegger, A, Strobl, B, Regl, G, Kaser, A, Luytjes, W & Vlasak R (1999) *Identification of a Coronavirus Hemagglutinin-Esterase with a Substrate Specificity Different from Those of Influenza C Virus and Bovine Coronavirus*. Journal of Virology p. 3737-3743

Surrey Dane, D, Miles, JAR, & Stoker, MGP (1953) *A Disease of Manx Shearwaters: Further Observations in the Field*. Journal of Animal Ecology. 22 (1) pp 123-133



## RSPCA STAPELEY GRANGE WILDLIFE CENTRE

RSPCA Stapeley Grange admitted 6,637 wild animals in 2016, of which 334 were domestic and 57 exotics. A total of 176 different species were admitted making the hospital an exciting and interesting working environment.

Balloon syndrome in hedgehogs (*Erinaceus europaeus*) is one of those strange conditions that wildlife vets have heard stories of but rarely see. Since 2005, Stapeley has only received nine hedgehogs with this condition. It's not known exactly what causes balloon syndrome, although traumatic injuries to the chest and gas producing bacteria under the skin have all been proposed as possible causes. The end result is a collection of gas under the skin that inflates the hedgehog like a balloon – sometimes to double the normal size.

The hedgehogs are initially anaesthetized and x-rayed as it is important that we identify any fractures or other life threatening issues that require consideration in the initial case assessment. Once it's been determined that there are no other injuries and a diagnosis of balloon syndrome has been confirmed, we are then able to relieve the pressure by draining the air, using a syringe under the hedgehog's skin. They are then given supportive care which can include antibiotics and painkillers.

Of the nine hedgehogs admitted since 2005, four were to put to sleep on admission, one within 48 hours and two within the first two weeks. For the two that were released it was not a quick turnaround and many attempts were needed to remove the air, as well as weeks of supportive care. For one of the hogs there were additional respiratory complications – coughing and sneezing, with a thick nasal discharge. A faecal sample confirmed a heavy burden of lungworm; he also developed a secondary lung infection. A second course of antibiotics, daily nebulisation and anti-inflammatories were prescribed. This hog was released six weeks later back to where he was first rescued.



## RSPCA MALLYDAMS WOOD EDUCATION CENTRE

RSPCA Mallydams Wood Education Centre, located alongside the Mallydams Wildlife Centre, is host to the *Hastings Wild Things* project and has been an animal welfare education centre for over 50 years. With expertise in designing bespoke education programmes to meet the needs of a large spectrum of the community, education work at Mallydams has become inspirational for developing practical, hands-on animal welfare education programmes throughout the RSPCA. We are recognised by local schools and organisations as a high quality outdoor learning establishment and hold the *Learning Outside the Classroom Quality Badge*.

The Hastings Wild Things project is funded by the Big Lottery and has specific measurable outcomes to achieve during its five-year lifespan. The project has three areas of focus: primary schools, young people and families. Each area of focus has three distinct lottery targets to achieve: improved attitude to learning, increased vocabulary and improved interpersonal skills for 6,000 primary school children; achievement of accreditation by 500 young people, growth in confidence and development of skills by 1,150 young people; increased confidence in parenting outdoors, improved communication and increased confidence interacting with their children for 225 families.

Our project outcomes are achieved through animal welfare based activities and as an RSPCA education team, we are specifically interested in evaluating the impact of our work on effecting positive attitude change towards animals. Towards the end of 2018 we will be producing a report which focuses specifically on the findings of our current evaluations on the impact of animal welfare education at RSPCA Mallydams Wood.

In 2018 we are offering a STEM (Science, Technology, Engineering and Maths) opportunity for local secondary pupils. Our *Animal Science Week* will offer discussion, debate, inspiration and innovation for pupils interested in science and technology. Pupils will find out about the work of each animal welfare science department within the RSPCA and will investigate and problem solve animal welfare issues, locally, nationally and internationally.



# THE RSPCA SCIENCE GROUP

## An influential centre of expertise

### LICENSING OF ANIMAL ACTIVITIES IN ENGLAND

The RSPCA Science Group has contributed substantially to the drafting of long-awaited changes to the licensing of activities in England such as dog breeding, boarding, pet selling and performing animals. New regulations, due to come into force in 2018, could deliver significant improvements to animal welfare, if properly enforced.

The Department for Environment, Food & Rural Affairs (Defra) committed to overhauling these areas over ten years ago when the Animal Welfare Act came into being, recognising that legislation needed revision and updating. Some pieces of legislation concerned are over 65 years old<sup>1</sup> and simply do not reflect the way animals are 'used' nowadays (e.g. pets were not advertised on the internet because it did not exist).

The RSPCA responded to Defra's initial consultation on animal establishments (later changed to 'animal activities') in early 2016<sup>2</sup>. Along with most other respondents<sup>3</sup>, we supported Defra's proposal to introduce new secondary legislation under the Animal Welfare Act 2006, and to introduce a single licence covering animal boarding establishments, pet sellers, riding establishments, and dog breeders. We urged Defra to include performing animals in the new regulations, rather than simply tinker with the current registration scheme. This looks set to happen, which would bring much needed protection for animals used in this industry.

### Defra's key proposals

The RSPCA expressed concerns about the proposal to extend the maximum term of licences from one to three years – a change that 40 percent of respondents were against – but this looks likely to be included in the regulations. However, the intention is that three-year licences should only be issued to 'lower-risk' businesses, as assessed by the local authorities responsible for regulating these activities, which would include meeting pre-defined higher standards. More frequent inspections would be reserved for businesses judged to place animal welfare at higher risk (or new businesses with an, as yet, unproven record). We also opposed proposals to exempt businesses that are accredited under a recognised, voluntary, scheme as this would introduce a confusing two-tier system that places animal welfare at risk. Thankfully this proposal was dropped (only 31 percent of respondents supported this), although accreditation may still contribute towards classification of a business as 'lower risk' and thus subject to less frequent inspections.

Working with colleagues in RSPCA Public Affairs, and alongside other animal welfare groups, vets, the pet industry, keepers, and local authorities, the RSPCA's Science Group has commented on the draft regulations and, during 2017, inputted heavily into the model licensing conditions and associated guidance that will be used by local authority licensing officers.

### LOOKING TO THE FUTURE

Potential 'wins' for animals that we hope to see in the final regulations, which apply in England only, include:

- closure of a loophole that allows puppies (and kittens) under eight weeks of age to be sold from pet shops;
- a lowering of the threshold when dog breeders need to be licensed, from five to three litters of puppies;
- licensing of all commercial pet sales, including animals advertised and sold over the internet and others involved in the supply chain such as wholesales and importers, and a requirement for sellers to provide buyers with care information;
- ensuring animals sold as pets, and cats and dogs that are boarded temporarily, are provided with the correct environment for the species, with minimum and higher standard guidance on enclosure sizing, enrichment, environmental conditions and company;
- clarity that the commercial sale of animals at temporary pet fairs is prohibited;
- licensing of performing ('exhibited') animals, including those used in mobile zoos/animal encounters, which would replace (in England) the current one-off registration that carries no inspection requirement;
- stopping the sale of puppies from breeders unless they are with their mother or from a rescue;
- requiring the use of socialisation and habituation programmes by dog breeders;
- in addition to commercial kennel facilities, licensing of home boarders and 'doggy day care' creche facilities.

The government laid the Regulations before Parliament in February 2018<sup>4</sup> and they are due to come into force in October 2018. At the time of writing, there is still much to be finalised, including on the accompanying guidance to local authorities. As with any regulations, their success will very much lie in enforcement and so we welcome plans to deliver training to local authority licensing officers as part of the package. The RSPCA will offer support to local authorities to ensure that the most is made of this opportunity to ensure that the regulations are properly informed by robust evidence relating to species-specific welfare needs and hence better protect animals used in, or affected by, these activities.

<sup>1</sup>Legislation included in this process: Pet Animals Act 1951, Animal Boarding Establishments Act 1963, Riding Establishments Act 1964, Riding Establishments Act 1970, Breeding of Dogs Act 1973, Breeding of Dogs Act 1991, Breeding and Sale of Dogs (Welfare) Act 1999, Performing Animals (Regulation) Act 1925.

<sup>2</sup>Defra (2016) *Consultation on the review of animal establishments licensing in England*, December 2015. The consultation ran for 12 weeks from 20th December

2015 to 12th March 2016.

<sup>3</sup>Defra (2016) *The review of animal establishments licensing in England. A summary of responses*, September 2016. A total of 1,709 responses were received but only 1,386 were summarised as they were considered substantive responses that specifically addressed the questions.

<sup>4</sup>The Animal Welfare (Licensing of Activities Involving Animals) (England) Regulations 2018.



# Responses to consultations

- House of Commons Science and Technology Committee: Inquiry on closing the STEM skills gap.
- House of Commons Science and Technology Committee: Inquiry on genomics and genome-editing.

- All-Party Parliamentary Group on Animal Welfare: Tackling livestock worrying and encouraging responsible dog ownership.

## National Assembly for Wales

- National Assembly for Wales. First 1000 days.

## Welsh Government

- Welsh Government Taking Forward Wales' Sustainable Management of Natural Resources.
- Welsh Government Code of Practice for the Welfare of Equines.
- Welsh Government Code of Practice for the Welfare of Dogs.

- Welsh Government consultation: A refreshed TB eradication programme.
- Welsh Government consultation: Mobile Animal Exhibits.

## Department for Environment, Food & Rural Affairs (Defra)

- Mandatory CCTV recording in slaughterhouses.
- Codes of Practice for the Welfare of Meat Chickens and Breeding Chickens.

- Consultation response to Defra on Bovine TB: Supplementary badger disease control.
- Consultation response to Defra and Welsh Government: Proposals to ban the use of plastic microbeads in cosmetics and personal care products in the UK (and call for evidence on other sources of microplastics entering the marine environment).

## Local government

- Denbighshire Council Proposed Public Spaces Protection Orders.
- Flintshire County Council Dog Control Public Space Protection Orders.

## World organisation for animal health (OIE)

- OIE terrestrial code of pigs.
- OIE Chapter: Animal Welfare and Laying Hen Production Systems.
- OIE Chapter: Animal Welfare and Pig Production Systems.

## Eurogroup

- Eurogroup for Animals submission to the European Commission's *Questionnaire for targeted stakeholder organisations involved in the development, validation or promotion of non-animal alternatives to the use of animals for scientific purposes* (2017).

## Biotechnology and Biological Sciences Research Council

- Strategy for UK Biotechnology and Biological Sciences.

## The Agriculture and Horticulture Development Board (AHDB)

- AHDB Quality Standard Mark for Halal Sheepmeat.
- AHDB: Proposal to introduce a farm assurance scheme for Halal sheepmeat.

## Others

- Certified Humane: Draft Humane Farm Animal Care Standards. Pigs – January 2018.
- Certified Humane: Draft Humane Farm Animal Care Standards Laying hens – January 2018.
- FAWAC: Animal Welfare Guidelines for Emergency Killing of Pigs on Farm.
- Global Animal Partnership 5-Step Animal Welfare Rating Standards for Chickens Raised for Meat v3.0.
- RSPCA Australia Approved Farming Scheme Standards – Meat chickens.
- RSPCA Australia Approved Farming Scheme Standards – Pigs.
- Soil Association slaughter standards.
- Soil Association standards for farming and growing-pigs.
- Soil Association standards for farming and growing-meat chickens.
- Scottish Environment Protection Agency: Regulation of marine cage fish farms – updating our approach to protecting the sea bed.
- Cargill: Does salmon farming cause deafness in salmon?

Companion animals Farm animals Research animals Wildlife

# Publications

## Companion Animals Department

- **Gaines, S.A.** (2017) *Campaign to end breed specific legislation*. Veterinary Record 180 (5).
- **Gaines, S.A.** (2017) *Petition seeks support for campaign to end BSL*. Veterinary Times. January 30, 2017 p27.
- **Gaines, S.A.** (2017) *Why you should join the end BSL campaign*. The Veterinary Nurse. 8(7) p412.
- **Oxley, J.A., Gaines, S.A.** *The welfare implications as a result of breed specific legislation in the UK*. Poster presented at *Measuring Animal Welfare and Applying Scientific Advances: Why Is It Still So Difficult?* UFAW International Animal Welfare Science Symposium (2017) Jun 27-29, Surrey, UK.
- **Gaines, S.A.** *Review of The Domestic Dog – its evolution, behavior and interactions with people, by James Serpell*. Animal Welfare. November, 2017. p479-481.

## Farm Animals Department

- Van Dijk, L., Elwes, S., Main, DCJ., Mullan, SM., 2018. *Farmer perspectives on welfare outcome assessment: learnings from four farm assurance scheme consultation exercises*. Animal Welfare 27, pp. 1-11.
- *RSPCA welfare standards for hatcheries (chicks, poults and ducklings)*. Updated 2017.
- *RSPCA welfare standards for meat chickens*. Updated 2017.
- *RSPCA welfare standards for laying hens*. Updated 2017.
- *RSPCA welfare standards for turkeys*. Updated 2017.

## Research Animals Department

- Kappel S, Hawkins P, Mendl M T. (2017). *To group or not to group? Good practice for housing male laboratory mice*. Animals 7(12), 88; DOI:10.3390/ani7120088.
- **Hawkins P**, McNeilly A, Wilson J, Brown A, Krall C, Rees J, Rogers S, Peirson S, Walker M, Ryder K & Golledge H. (2017). *Report of the 2016 RSPCA/UFAW Rodent and Rabbit Welfare Group meeting*. Animal Technology and Welfare 16(2), 77-86.
- **Lilley, E** (2017). *Animal 'models': How a mechanistic approach can reduce suffering and improve translatability*. ATLA 45, 159-160.
- **Smith A**, Clutton E, **Lilley E**, Hansen K & Brattelid T. (2017) *PREPARE: guidelines for planning animal research and testing*. Laboratory Animals, DOI: 10.1177/0023677217724823.
- **Lilley E**, Bailey, S & Robinson E. (2017). *Using animals in research? It's time to refine!* Pharmacology Matters 10(1), 4-6.
- **Reed B**, Beatham S, Carter S, **Clubb R**, Garrod K, Gale M, Gomm M, Knight K, Lane J, Mathews F, Pimlott P, Smith A, Wilson R, Weyer U & **Hawkins P** (2017). *Report of a RSPCA/APHA meeting on the welfare of wild animals used in research*. Animal Technology and Welfare 16(1), 13-25.

- **Hawkins P** & Golledge H (2017). *The 9 to 5 Rodent – Time for Change? Scientific and animal welfare implications of circadian and light effects on laboratory mice and rats*. Journal of Neuroscience Methods, <https://doi.org/10.1016/j.jneumeth.2017.05.014>.

## Wildlife Department

- **Dubois, S., Fenwick, N., Ryan, E. A., Baker, L., Baker, S. E., Beausoleil, N. J., Carter, S., Cartwright, B., Costa, F., Draper, C., Griffin, J., Grogan, A., Howald, G., Jones, B., Littin, K. E., Lombard, A. T., Mellor, D. J., Ramp, D., Schuppli, C. A. and Fraser, D.** (2017), *International consensus principles for ethical wildlife control*. Conservation Biology. doi:10.1111/cobi.12896.
- **RSPCA** (2017) *Understanding the Motivation of Beginner Reptile Owners*. Published online.

## BLOGS

### COMPANION ANIMALS

- [Seven puppies euthanised under Breed Specific Legislation.](#)
- [Caring for rabbits in winter.](#)
- [Rabbit Haemorrhagic Disease – are your rabbits protected?](#)
- [Are your rabbits as happy as can be?](#)
- [Why do my rabbits...?](#)
- [Preparing your rabbits for winter.](#)
- [Playing with dogs.](#)
- [We're all going on a summer holiday.](#)
- [Another year at Crufts.](#)
- [Nine things that anyone who's ever owned a puppy will know.](#)
- [Liven up your walk with these training games.](#)
- **Contributor to:** [What would make the world a better place for dogs?](#)

### FARM ANIMALS

- [What are we doing about non-stun slaughter? RSPCA Insights.](#)

### WILDLIFE

- [Why do foxes behave the way they do?](#)
- [Fifty year anniversary of the Torrey Canyon oil tanker disaster.](#)
- [Ducklings – when to help them and when to leave them alone.](#)
- [Six common hedgehog mishaps.](#)



**Royal Society for the Prevention of Cruelty to Animals**

Telephone: 0300 1234 999 [www.rspca.org.uk](http://www.rspca.org.uk)

[facebook.com/RSPCA](https://www.facebook.com/RSPCA) [twitter.com/RSPCA\\_official](https://twitter.com/RSPCA_official)

The RSPCA helps animals in England and Wales. Registered charity no. 219099. Cover image: Janet Fox

The RSPCA only exists with the support of public donations. Copyright © 2018 RSPCA. All rights reserved.

This material must not be reproduced or used in any manner whatsoever without the express written permission of the RSPCA.

# RSPCA Science Group

## Chief Scientific Officer

Julia Wrathall BSc MSc PhD ChMIACE

## Companion Animals Department

Samantha Gaines BSc MSc PhD

Lisa Hens BSc

Alice Potter BSc MSc

Jane Tyson BSc MSc PhD

## Farm Animals Department

Marc Cooper BSc MSc PhD

John Avizienius BA MSc

Kate Parkes MA MSc

Mia Fernyhough BSc MSc PGCE

Siân Phillips BSc

Sophie Elwes MA MSc

Emily Coughlan BA BVetMed (Cantab) MRCVS

Sconaid Wastie BSc MSc

Sophie Collins BSc MSc PhD

Eoina Rodgers BSc BA

Luisa Dormer BSc MSc

Belinda De Lara

## Regionally based field staff

Allan Pearson OND

Charlotte Thomas BSc

Phil McCarthy

Emilie Wix BSc

Ian Michie BA NSch

Rob Howorth (until 17.11.17)

Grace Harris-Bridge BSc MSc (until 10.11.17)

## Research Animals Department

Penny Hawkins BSc PhD

Barney Reed BSc MSc

Elliot Lilley FBPhS BSc PhD

Juliet Dukes FRSB BSc MSc PhD

Maria McGrath (also covers Companion Animals)

## Wildlife Department

Adam Grogan BSc

Ros Clubb BSc DPhil

Nicola White BSc MSc PGDip

Llewelyn Lowen BSc MSc

Sue Gallagher

Evangeline Button BA

## RSPCA Wildlife Centre Managers

Alison Charles VN

Bel Deering BSc DPhil

Lee Stewart BSc MSc

Simon Fathers BSc



Helping animals through welfare science

[www.rspca.org.uk/sciencegroup](http://www.rspca.org.uk/sciencegroup)