



Science Group

Review of 2015



www.rspca.org.uk/sciencegroup

Foreword

This year's *RSPCA Science Group Review* is the 25th edition of the report, and covers the work of the Group's four departments during 2015.

A look back at the first *Review* in 1991 provides a fascinating insight into the welfare issues that were prevalent at the time, and the approaches being taken to address them. The intervening years have seen significant changes in legislation protecting animals, industries using animals and public views about – and understanding of – animals. Progress in scientific research has substantially increased our knowledge of the physical and behavioural needs of different species and hence of the impact that humans can and do have on their wellbeing. Practical innovations have also enabled at least some of those new learnings to be implemented in practice, including through the work of the Science Group and the wider RSPCA.

Comparison between the first *Review* and this year's report also shows how the Science Group itself has developed over the years. It has grown from around a dozen to over 30 staff and gained an additional department to cover companion animals, adding to those dealing with farm, research and wild animal welfare. Some of the welfare challenges reported in the 1991 edition still remain today, such as trade in wild-caught animals, keeping farmed animals in intensive conditions, concerns about the impact on welfare of dog control laws and the need to keep pushing for the replacement of animals in research and testing. Nevertheless, many of these areas – and a host of others – have been significantly progressed as a result of the RSPCA's work, and the welfare of immeasurable numbers of animals improved.

As our understanding of what different species of animals need and want continues to grow, including through important new developments such as welfare outcome assessment, it is likely that the challenges faced in acting upon that knowledge will become ever greater. An evidence-based approach when proposing change to existing attitudes and practices is not only essential if we are to have the best chance of making meaningful progress from the animals' point of view, it is also crucial in ensuring credibility with those whose views and practices are being challenged.

Whilst comparison with the first *RSPCA Science Group Review* in 1991 shows how much progress has been made in some areas, the issues covered in this year's *Review* also illustrate that there is still a very great deal to be done before all animals are provided with the potential to have a 'good life'. Perhaps the biggest challenge of all will be ensuring that animal welfare is included as an integral and important part of future national and international policy development in all areas that touch the lives of animals. However, with the Science Group's continuing contribution to ensuring that the RSPCA's policies and activities are properly informed by scientific research, expert opinion and practical experience, it is with some optimism that we look forward to the next 25 years. It is to be hoped that during that time, the RSPCA and others taking a similarly well-informed, evidence-based approach will continue to make a significant contribution to progressing the cause of animal welfare.



Julia Wrathall

Assistant Director – Science

“Progress in scientific research has substantially increased our knowledge of the physical and behavioural needs of different species”.

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Highlights from 2015

COMPANION ANIMALS

Delivered training to RSPCA inspectors specialising in the breeding, dealing and trade of puppies. The training focused on the socialisation and habituation needs of puppies and the importance of enrichment for dogs at breeding establishments. [P6](#)

Helped produce a booklet for adopters which aims to improve animal welfare, prepare the adopter for bringing home their new dog and to manage adopter expectations in the first few weeks and months following rehoming. [P5](#)

Produced a range of resources to help owners and those who come into contact with dogs, cats and rabbits to recognise behaviours that express how they are feeling. [P8](#)

FARM ANIMALS

Published new versions of the RSPCA welfare standards for domestic/common ducks and for farmed Atlantic salmon, and new farrowing standards for pigs. [P11](#)

AssureWel (a collaborative project with the Soil Association and the University of Bristol) continued into its fifth year developing robust on-farm welfare outcome assessment for further species – meat chickens, beef cattle and sheep. [P14](#)

Worked across the world to encourage improvements in farm animal welfare, including making recommendations to improve welfare at slaughter in Africa and the welfare of farmed fish in Canada. [P12](#) [P13](#)

RESEARCH ANIMALS

Launched a new online resource to help avoid severe suffering in animal research. [P18](#)

Launched an updated edition of the RSPCA Lay Members' Handbook for members of ethics committees reviewing animal use. [P17](#)

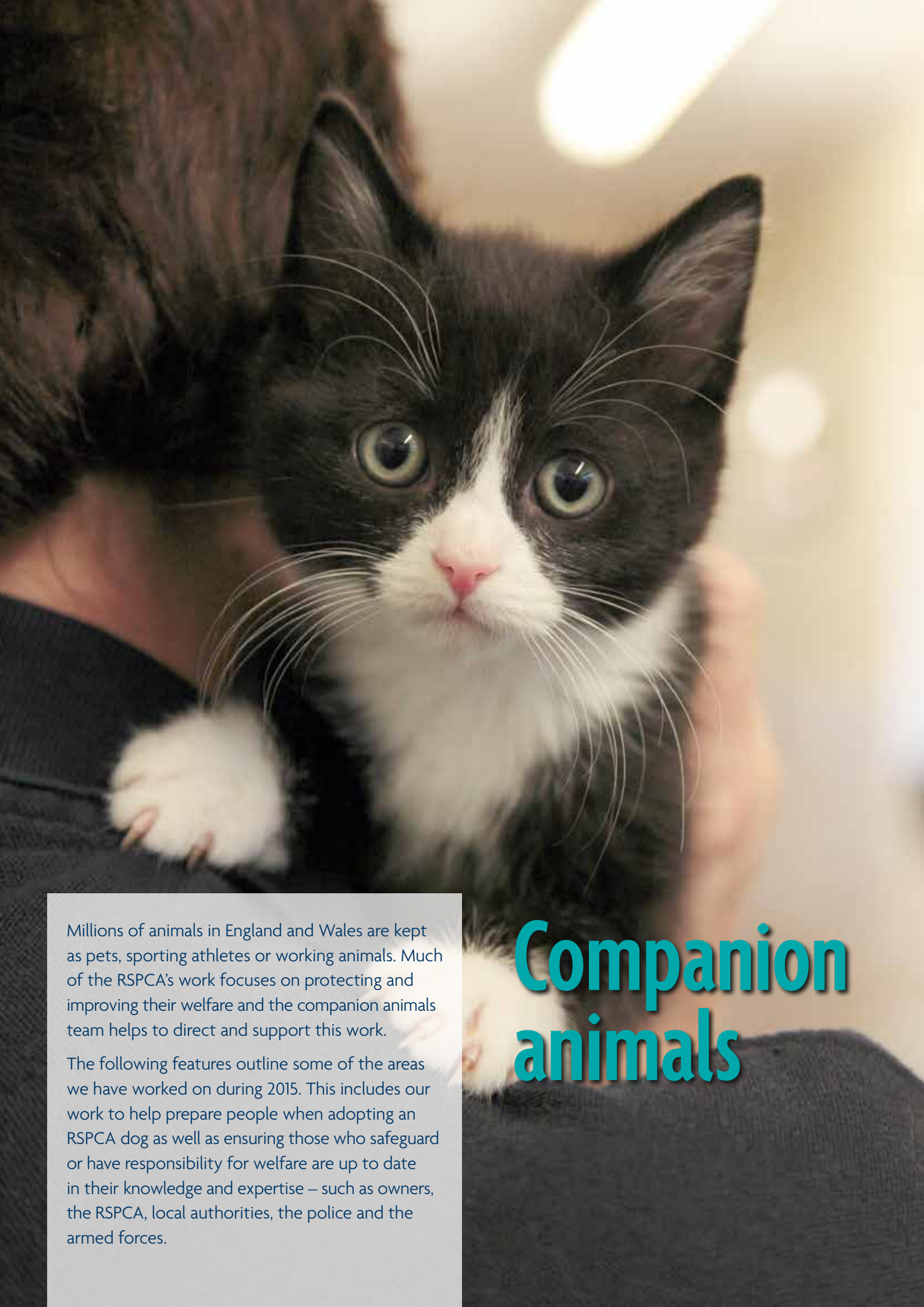
Held the first RSPCA/Animal and Plant Health Agency meeting on *Welfare of wild animals used in regulated procedures*, attended by around 70 delegates from the UK and overseas. [P20](#)

WILDLIFE

Produced licensing conditions to be used with species-specific care sheets to help meet the needs of the increasing number of reptiles and amphibians coming into RSPCA centres. [P25](#)

Published a range of *Living with...* fact sheets to help the public learn about wildlife commonly found in homes or gardens, and how to encourage or humanely deter them. [P23](#)

Investigated the survival of the wild animals released after rehabilitation in RSPCA centres. [P26](#) [P27](#)



Millions of animals in England and Wales are kept as pets, sporting athletes or working animals. Much of the RSPCA's work focuses on protecting and improving their welfare and the companion animals team helps to direct and support this work.

The following features outline some of the areas we have worked on during 2015. This includes our work to help prepare people when adopting an RSPCA dog as well as ensuring those who safeguard or have responsibility for welfare are up to date in their knowledge and expertise – such as owners, the RSPCA, local authorities, the police and the armed forces.

Companion animals

HELPING THE RSPCA TO HELP ANIMALS

Fostering for the RSPCA

Volunteer **foster carers** fulfil a crucial role for the RSPCA and

they can make a huge difference to the rehabilitation of an animal and their chances of finding a permanent home.

Foster homes can be particularly beneficial for socialisation, for animals who are struggling to cope in an animal centre environment,

or for those involved in a prosecution case who may be in our care for an extended period. In order to support these valued volunteers in providing best practice care for their foster dogs, cats and rabbits, the companion animals department has supported

RSPCA rehoming staff to develop a range of booklets on caring for RSPCA foster pets. These booklets will be a great resource for foster carers and cover everything from helping their foster animal to settle in, to keeping them safe and understanding their behaviour.



Alice Potter –
Scientific Officer

“Providing adopters with information at the point of reservation gives them time to prepare and understand the needs of their new rescue dog. Everything is covered from what to buy and how to help their dog settle at night to introducing new experiences and preventing and managing behaviour problems”.

Preparing for adoption

Animal rescue and rehoming is a key focus for the RSPCA. In 2014 our animal centres and branches rehomed over 40,000 dogs, cats and rabbits. Adopting an animal from the RSPCA can be hugely rewarding but – as when taking on any animal – it also requires a big commitment.

We have worked alongside other key RSPCA departments to produce a booklet, designed to be given to adopters as soon as they reserve an animal. 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 dog home – for example, housetraining and

settling in a nervous dog. It aims to improve animal welfare and prepare the adopter for bringing their new dog home. It also helps minimise the number of animals returned by managing the adopters' expectations and providing greater support if problems do arise. In 2016 we will be producing a pre-adoption booklet for cats.



Inspectorate training and advice

The RSPCA has around 330 inspectors throughout England and Wales who investigate more than 150,000 complaints of cruelty and neglect every year. They are able to resolve the vast majority of these complaints by providing advice, assistance and support to people who need help in meeting the needs of their animals. However in some cases our inspectors also have to deal with serious cases of animal suffering and further action may be required to protect the welfare of those animals.

There have been significant advances in the understanding of companion animal behaviour and welfare in recent years and it is vital that RSPCA inspectors have access to this up-to-date information.

Inspectors are better equipped to advise and inform owners if they have an informed understanding of the welfare needs of animals. This also allows them to build a strong evidence base when putting together a case. To ensure our inspectors are up to date in their knowledge and that the advice and information given best meets their needs, the companion animals department has developed and delivered a training session for the most recent group of trainee inspectors on the biology and behaviour of rabbits, cats and dogs.

Tackling the puppy trade

The RSPCA has seen a 122 percent increase in calls relating to the puppy trade over the past five years.

To help address the problems around the breeding, dealing and trade of puppies, the RSPCA has created a group of specialist canine focus officers to provide advice and information on investigations relating to these issues. The companion animals department developed and delivered a new training course to these inspectors to give them a better understanding of the socialisation and habituation needs of puppies, and the importance of enrichment for all dogs to help the inspectors improve the welfare of the puppies and adult dogs at breeding establishments.



DOG CRATES – safeguarding welfare

Earlier this year, the RSPCA inspectorate reported an increase in the number of complaints received about dogs being kept in crates – many of an inappropriate size – for extended periods of time and with some appearing to live almost permanently confined.

In response to these complaints we developed a checklist to help inspectors assess the welfare in each individual case and to ensure owner compliance with their legal duty of care under Section 9 of the Animal Welfare Act (2006). To further support the inspectorate and improve the welfare of these dogs, we have worked with inspectors to develop information for their clients which provides clear guidance on how crates should be used in order to safeguard their dog's welfare.



HELPING OTHER ORGANISATIONS TO IMPROVE ANIMAL WELFARE

Understanding the Animal Welfare Act

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. Within local authorities, practitioners have responsibility for stray dogs whereas the police have responsibility both for working dogs and those seized under legislation such as the Dangerous Dogs Act 1991.

To help ensure practitioners understand their responsibilities and apply that understanding in such a way that a dog's welfare needs are met, members of the RSPCA's companion animals and public affairs departments led two seminars in 2015 – one on the Animal Welfare Act and the other specifically on meeting the welfare needs of dogs in kennels. In both sessions, we ran workshops for practitioners with small groups. Each considered a welfare need and identified whether they did provide for a dog's welfare needs and, if not, how they might be able to modify and improve the care and management of the dog.

In addition, the department has worked with the Royal Army Veterinary Corps (RAVC) delivering training to the 1st Military Working Dog (MWD) Regiment, an operational unit based both in North Luffenham and Sennelager, Germany and the Defence Animal Centre, the joint training school for the RAVC and the Royal Air Force Police (RAFP). These interactive sessions outlined what welfare is, why it is important and how the welfare needs of kennelled working dogs can be met.



Encouraging welfare improvement at a local level

The RSPCA's Community Animal Welfare Footprints (CAWF) Scheme has been running for eight years. It continues to be the only award scheme that recognises and promotes the work of those local authorities, housing providers and local resilience forums in England and Wales that demonstrate good practice in animal welfare services. The awards focus on four key areas: housing, contingency planning, animal welfare principles, and stray dogs.

Working with the RSPCA's public affairs team, we have produced a guide for good practice when providing, or outsourcing a stray dog service. The booklet gives guidance on what makes a good stray dog policy – for example, ensuring dog wardens receive adequate training in dog handling, welfare and behaviour and having processes in place to help reunite dogs and owners as quickly as possible. It also highlights some of the good practice demonstrated by the Footprint achievers.

The guide has been really well received, and was presented at the autumn party political conferences.



Lisa Richards –
Senior Scientific Officer

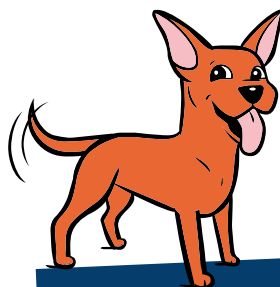
“Recognising and awarding local authorities, housing providers and local resilience forums encourages them to improve and maintain high standards of welfare in the services they provide.”

HELPING OWNERS CARE FOR PETS

Meeting the welfare needs of pets

All owners have a duty of care to ensure the welfare needs of their pets are met. These needs include a suitable environment and diet, the ability to exhibit normal behaviour patterns, being housed with or apart from other animals and being protected from pain, suffering, injury and disease.

We have worked with a variety of experts in behaviour, veterinary and welfare science to provide advice to help owners comply with their legal duty. A range of information is available at: www.rspca.org.uk/pets as well as in booklet and leaflet format. In 2015 we added to the dog, cat, rabbit and hamster welfare needs booklets with a new resource on guinea pigs.



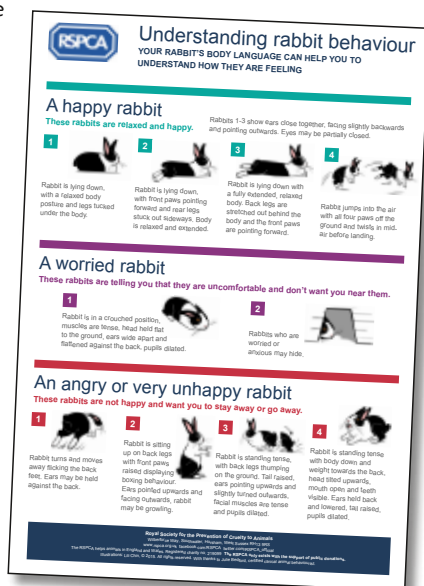
Understanding behaviour



Failure to understand an animal's behaviour can have a negative impact on their welfare and can also risk causing injury to both animals and people. We commissioned US based illustrator, Lili Chin, to help owners recognise the behaviour used by animals to express how they are feeling. She has developed a set of images for dogs and cats portraying the different signals they display depending on one of three emotional states – happiness, anxiety and fear. During 2015 we used these illustrations in a range of resources to help owners, as well as RSPCA staff and volunteers, understand how their animals are feeling.

Our new resources include leaflets on *Understanding your dog's behaviour* and *Understanding your cat's behaviour* as well as posters which can be downloaded, blog posts and new public-facing web pages on both **dog** and **cat** body language.

Following a positive response to these resources, we have recently recommissioned Lili Chin to design images which depict the different body language shown by happy, anxious and unhappy rabbits. Again we are using these to create a range of materials. A poster has been developed and a leaflet on *Understanding your rabbits' behaviour* will be available in 2016.



Dr Jane Tyson –
Scientific Officer

“The response we have already had to our behavioural material has been amazing. The public really appreciate the RSPCA being able to deliver scientific information in a fun and easily understandable manner. We are very excited about producing more resources next year, and helping even more owners understand their pet's body language.”

Focus on rabbits

During 2015 the companion animals department continued to focus on improving rabbit welfare in the pet population. Once again, we supported Rabbit Awareness Week (RAW), the theme for 2015 being focused on providing a good, enriched environment. During the week, we hosted a Facebook Q&A session, promoted rabbit welfare on our social media channels and released a blog on rabbit housing. A number of our animal centres and branches also participated by creating educational displays and holding various events over the course of the week.

RAW also provided the perfect opportunity to launch a ten-point rabbit welfare vision

statement which brought together animal welfare organisations, welfare scientists, breeders, the pet industry and the veterinary profession. Part of the vision was developed from research, commissioned by the RSPCA and undertaken by the University of Bristol, investigating the state of rabbit welfare. The research concluded that the welfare needs of many companion rabbits are not currently being met. We announced the vision statement in a [press release](#). Looking forward to 2016, we will be working alongside these other organisations to implement the vision statement and develop a strategy to further improve companion rabbit welfare.



Getting the message across

The department also represents the views of the RSPCA on companion animal welfare in the written media and in interviews on radio and television.

In 2015 we provided views and advice on numerous companion animal issues including separation related behaviour in dogs, the sentencing for dangerous dogs offences, rehoming black cats, preparing pets for Bonfire Night and rabbit companionship. Interviews were also featured on local radio stations as well as on BBC Breakfast, BBC News at One and X-Ray.





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 RSPCA 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 RSPCA farm animals department works 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 support and information on farm animal issues to other sections within the RSPCA, including communications, campaigns, corporate engagement and fundraising, as well as giving practical advice to field operations activities including inspectorate, RSPCA animal centres, and the RSPCA Assured farm assurance scheme, Freedom Food, whose farm, haulier and abattoir members are monitored by the department's farm livestock officers.

ACHIEVING CHANGE THROUGH HIGHER STANDARDS

We have been developing **RSPCA welfare standards for farm animals** for over 20 years and now have 12 sets of species-specific standards. 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 go above and beyond common practice and legislation in the UK in a number of key areas and are primarily implemented through the **RSPCA Assured farm assurance scheme, Freedom Food**. They also have a much wider impact on farm animal welfare, having influenced laws and government codes, and the production standards set by many retailers, various assurance

schemes and some farming companies in the UK and beyond.

To ensure that the standards have a positive impact on farm animal welfare, we use a robust and well-considered **evidence base** to develop them. 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 that 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 2015 are below.

RSPCA WELFARE STANDARDS FOR DUCKS: AMENDMENTS AND RESEARCH REPORT

The RSPCA welfare standards for domestic/common ducks were updated in February 2015. The main area of focus was the provision of open water facilities.

It has always been a requirement within the standards to provide ducks with full body access to open water. However, this key issue was strengthened following a full and detailed review of the published scientific research in this area. This included reviewing the work commissioned by the RSPCA – funded by the Tubney Charitable Trust and undertaken by Cambridge University – to evaluate and identify practical and commercially viable ways of providing farmed ducks with suitable open water facilities. A technical report, **Watertight**, which summarised the evidence base for providing farmed ducks with access to open water, was also published at the same time as the revised standards.

RSPCA WELFARE STANDARDS FOR FARMED ATLANTIC SALMON

One of the main changes to the RSPCA welfare standards for farmed atlantic salmon in 2015 was the use of wrasse and lumpstickers as cleaner fish in the treatment of sealice.

Biological controls have become an important tool for the industry and the RSPCA's pioneering standards for cleaner fish are already being used. We plan to update these standards on an ongoing basis as our knowledge evolves. Another key change related to improving biosecurity when using wellboats to transport fish. All new harvest wellboats operating in Scotland from 1 January 2016 must have an effective sealice filtration system in place and all wellboats registered to operate in Scotland must have a system which determines their position and the status of all inlet, outlet and bottom valves. These standards were developed in discussion with the industry, Marine Scotland and the Scottish Salmon Producers Organisation, and also include a new slaughter section dedicated to 'dead haul' wellboats has also been included in the standards.

RSPCA WELFARE STANDARDS FOR PIGS: NEW FARROWING STANDARDS

The RSPCA welfare standards for pigs have prohibited the use of farrowing crates by any member of the RSPCA Assured scheme, Freedom Food, since the end of 2013, but new standards setting out more detailed requirements for indoor 'free farrowing' were issued in December 2015, covering areas such as space, flooring and bedding/enrichment materials.

The new minimum size of bedded lying/nest area (2.8m²) and the new minimum total pen size (5m²; including the lying/nest area) are based on scientific research into the needs of the sow and her piglets, and take account of the latest research on the minimum space required for the sow to lie down laterally and for parturition. The standards also reflect the known importance of providing adequate additional space, as an inability to separate the dunging area from the lying/nest area or feeding area is likely to result in poor hygiene and potential health issues. It could also lead to increased activity which could heighten the risk of piglet crushing by the sow.

Our new standards reflect research on the minimum space required to satisfy these needs as well as nest-site seeking behaviour. In addition to setting future requirements for Freedom Food scheme members, we hope that these and other associated evidence-based additions to our indoor 'free farrowing' standards will help support and encourage more commercial pig breeders to move towards unconfined farrowing systems that meet the needs of both piglets and sows.



INFLUENCING CHANGE ACROSS THE WORLD

Improving slaughter in Africa

In March 2015, staff from the RSPCA farm animals and international departments undertook an EU-funded project in Africa to observe and assess the welfare of farm animals at the time of slaughter.

A number of slaughter facilities, both commercial and rural, were visited to view the most commonly farmed species for meat – cattle, goats, poultry and pigs – being slaughtered according to a range of methods, including non-stunning. Local government vets attended

the visits. We provided on-the-spot advice regarding how the slaughter practices being observed could be improved to benefit animal welfare.

At the end of the visit, a comprehensive overview of the work undertaken was presented to key local government officials – including the head of the Ministry of Agriculture's Department of Animal Health and Livestock Development. The presentation included practical and low or no cost recommendations for the

improvement of livestock welfare at the time of slaughter, based on the observations made during the visits.

In general, the poor practice primarily resulted from a lack of practical knowledge and site-specific guidance. Information and advice on these areas was provided at the time of the visits, making the work extremely worthwhile and successful. Furthermore, it has been reported that one of the slaughter plants has already implemented the recommendations made,

which will result in a significant improvement to the welfare of the thousands of animals killed there each year.

Follow-up visits are being planned to deliver training to slaughterhouse officials and to assess the uptake and welfare impact of the recommendations and advice provided during the initial visit.



In 2015, a member of the department was invited to speak at a seminar in Canada on the use of carbon dioxide controlled atmosphere systems for the killing of meat chickens.

The presentation focused on the key areas that need to be considered to help achieve the most humane kill possible when using the carbon dioxide gas killing systems that are currently commercially available. The seminar was very well attended by representatives from all the

main meat chicken processing groups in Canada, the vast majority of which do not yet have gas killing systems installed but are considering their adoption. This event therefore presented a good opportunity for the RSPCA to provide the Canadian industry with information and advice to help them select the right gas killing systems from a welfare point of view. This in turn could help ensure better welfare at the time of killing for hundreds of millions of chickens every year.



Marc Cooper –

Scientific & Technical Advisory Section Manager
(Pigs and Poultry)

“Many actions and initiatives aimed at improving farm animal welfare tend to focus on the period when the animals are being reared. However, welfare considerations at the ‘end of life’ – when the duration of suffering may be short but the severity of suffering can be very substantial – are just as important.”

Certified Humane visit and trip to USA

In June 2015, a delegation from Certified Humane, one of the main farm animal welfare assurance schemes in the USA, visited the RSPCA to explore the possibility of developing a set of their own farmed fish standards to operate in Canada and the USA. Interest in farm animal welfare continues to grow amongst retailers in both these countries.

Staff from the department and the RSPCA Assured Scheme, Freedom Food, escorted them around farms, transporters and processing plants in Scotland,

showing them the whole lifecycle of the fish from hatching to slaughter. In October 2015, Certified Humane, (a fish farming company from Canada, and one of the major Canadian retailers) invited – on a consultancy basis – one member of staff from the department and one from Freedom Food to visit fish farms and processing plants in Canada to assess the degree to which the RSPCA standards could be applied to the Canadian systems. This process is ongoing and, if successful, could benefit many millions of farmed fish in the future.

Pig welfare presentation in Denmark

In April 2015, a member of the department was invited to give a presentation at a two-day international conference on improving pig welfare, organised by the Danish Ministry of Food, Agriculture and Fisheries and the Danish Centre for Animal Welfare.

Speaking alongside a colleague from the RSPCA Assured Scheme, Freedom Food, we addressed an international audience of over 400 participants including academics, pig industry representatives, animal welfare organisations and European Agriculture Ministers. The presentations highlighted the success of the Freedom Food scheme, how the RSPCA develops its welfare standards and the challenges involved, and the opportunities for improving pig welfare through a farm assurance scheme. The department also had a poster on display explaining how we are incorporating welfare outcome measurement into Freedom Food assessments (see *Improving welfare through measuring outcomes* overleaf).



WORKING TOGETHER FOR PROGRESS

The department works with many organisations, companies and individuals – including in food and farming industries, academia, governments and animal welfare organisations – with the aim of improving farm animal welfare through collaboration.

In addition to influencing change through representation on governmental and industry committees and steering groups, we are also involved in helping to drive progress through joining with others to achieve mutually agreed objectives that are more effectively delivered through collective working.

Beak Trimming Action Group

In November 2015 the Beak Trimming Action Group (BTAG) made its final recommendations to the government regarding the introduction of a ban on beak trimming of laying hens which was due to come into force in England in January 2016. The RSPCA is a member of the BTAG.

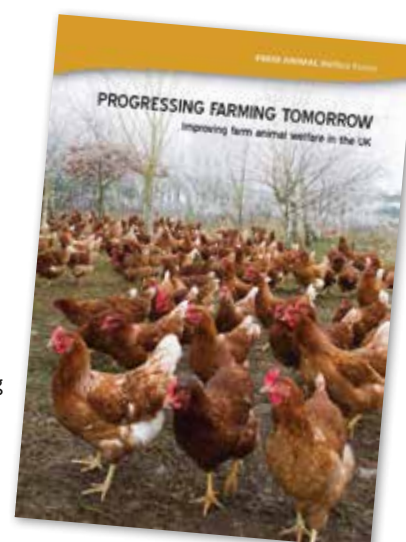
The group recommended that a ban should not be implemented in 2016, but that work should continue to reduce the need for beak trimming by addressing the underlying problem of injurious pecking behaviour. The farm animals department is already working with leading individuals and groups from industry and academia to develop a robust programme of work, including advice and support for laying hen farmers on how to reduce the risk of feather pecking and improve other welfare issues, with a view to ensuring beak trimming is phased out at the earliest possible opportunity.

Farm Animal Welfare Forum

The RSPCA is a member of the Farm Animal Welfare Forum (FAWF), a group of influential organisations concerned with improving livestock welfare. The Forum develops high level strategies for addressing those welfare issues identified by the group as being the most pressing, and which we believe can be most effectively progressed through working collaboratively and utilising the respective strengths of each party.

In 2015, the FAWF issued a sequel to its original strategy. The *Progressing Farming Tomorrow* report sets out short and long-term objectives for improving the lives of laying hens, meat chickens, pigs and dairy cattle. One of these is securing mandatory method of production labelling (underpinned by welfare outcome measures – see *Improving welfare through*

measuring outcomes overleaf) on all animal products across the EU. This will enable consumers to contribute to driving positive change by making an informed choice about which farming methods to support through their purchases. The FAWF's oversight of the *Labelling Matters* initiative is helping to progress this aim.



IMPROVING WELFARE THROUGH MEASURING OUTCOMES

AssureWel is a collaborative project between the RSPCA, the Soil Association and the University of Bristol with the primary aim of improving farm animal welfare via development of practical, scientifically informed welfare outcome assessments.



AssureWel International

A second AssureWel International meeting was held in April 2015, in Vienna, and was jointly hosted by BOKU University of Natural Resources and Life Sciences and Vier Pfoten International.

Delegates were predominantly representatives from various international farm assurance schemes and were keen to learn about the progress of the [AssureWel](#) initiative. The meeting included an overview of developments made since the previous meeting and

allowed participants to discuss how their schemes were using welfare outcomes. All the schemes present were in the process of, or had plans aimed at implementing welfare outcomes. Topics included how to provide feedback on the outcome assessment results on-farm to producers in order to increase the uptake of advice and consequently lead to tangible welfare improvements. Delegates were also able to take part in a dairy welfare outcome assessment, which helped demonstrate in practice the process of how to develop practical on-farm assessments. A third meeting is being planned for 2016.



New welfare outcome assessment protocols for meat chickens, sheep and beef

A key objective of the AssureWel project is to develop welfare outcome assessments for meat chickens, sheep and beef cattle. Various measures and scoring methods for these species have been considered, with advice and input from many industry and research collaborators. Assessment protocols have been developed and trialled throughout 2015. The trials were initially on a small scale to help refine the protocols before they were then piloted more widely by Freedom Food assessors, RSPCA farm livestock officers and Soil Association inspectors on a sample of farms within their respective farm assurance schemes (Freedom Food and Soil Association Certification). The assessments are being finalised and the aim is to incorporate these within the two schemes during 2016.

Meat chickens:

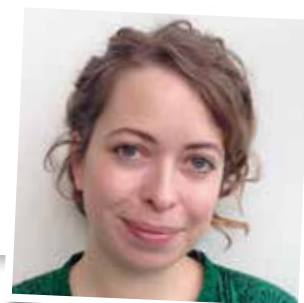
To date, there has been good feedback on the protocols developed for assessing meat chickens. There are two different protocols, depending on whether the birds are reared in indoors or in free-range systems, including organic. The AssureWel project team has been liaising closely with the Red Tractor scheme which is looking to pilot the protocol in early 2016.

Beef and sheep:

Large scale pilots have now been concluded with input from Red Tractor certification bodies on a variety of systems. Following a final consultation exercise, the welfare outcome assessment protocols for these species should be finalised shortly.

Laying hens, dairy and pigs: update on data

The collection of welfare outcome data for hens, dairy cows and pigs within Freedom Food, is well underway. Plans are in place to analyse this data to enable trends for various welfare issues to be tracked and valuable information generated to help inform further the development of the RSPCA welfare standards for these species. Incorporation into the welfare standards of a mandatory requirement to undertake welfare outcome assessments will begin in 2016, with roll out to all relevant species in due course.



Sophie Elwes –

Senior Scientific Officer (Welfare Assessment)

“Being able to analyse effectively the welfare outcome assessment data will, amongst other things, help provide an objective view of the level of welfare being achieved for various parameters on the RSPCA Assured scheme, Freedom Food members’ farms. Furthermore, analyses will also enable welfare issues to be prioritised and the efficacy of various interventions monitored.”



Research animals

Animals are used for many different purposes in research and testing and each area of use raises specific ethical, welfare and scientific issues. The RSPCA adopts a constructive, practical approach, aimed at developing 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 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, reduction of animal use, and refinement of husbandry and procedures to reduce suffering and improve welfare throughout the animals' lives.

PROMOTING EFFECTIVE ETHICAL REVIEW

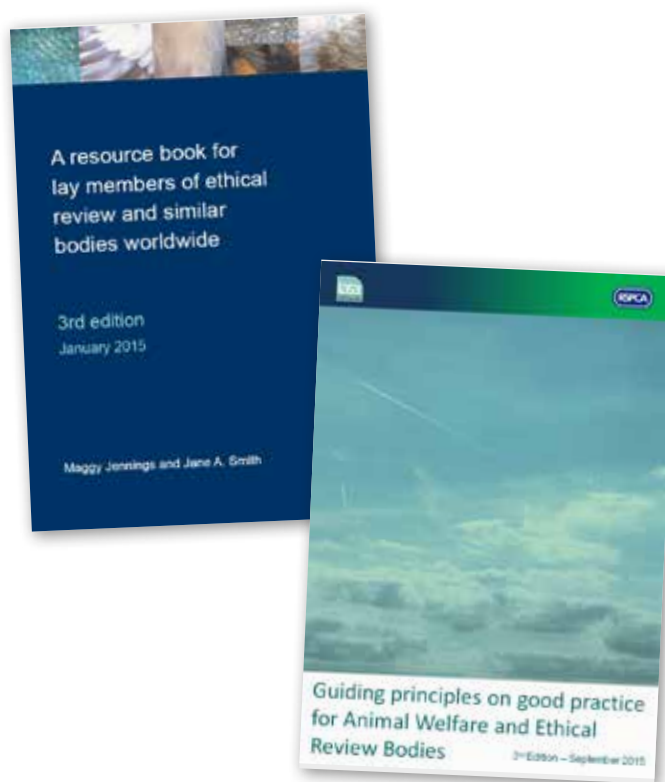
Helping to ensure **robust ethical review** of animal use is a critically important area of work for the RSPCA. The RSPCA research animals department made good progress throughout 2015 with our initiatives to support Animal Welfare and Ethical Review Bodies (AWERB)s – these are local committees that aim to ensure all use of animals at 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.

NEW resources

Both of the RSPCA's key resources for AWERB members have been revised to bring them up-to-date with recent revisions to the **law regulating animal use**, including the former local Ethical Review Process evolving into the new AWERB.

The third edition of the **RSPCA Lay Members' Handbook**, which provides useful background information, points to consider and practical advice for lay (and other) members of AWERBs, was launched in January. The handbook is useful for members of ethical review bodies worldwide, as well as in the UK, and the online version contains weblinks and helpful directions towards further reading, guidance and references. It can be **downloaded** for free.

We also worked jointly with the Laboratory Animal Science Association (LASA) Education, Training and Ethics Section to update the **Guiding principles on good practice for AWERBs** publication. This third edition, published in September 2015, is aimed at all AWERB members and covers all of the UK AWERB's tasks including practical activities. These include project review, retrospective review and assessment, accommodation and care of animals, support and training for staff, and developing the right 'culture of care'.



Events

The research animals department held two meetings during 2015 aiming to support and promote the AWERB.

The first meeting was a workshop for animal technologists on 'How to become involved with the AWERB' at the annual **Institute of Animal Technology (IAT) Congress** in March 2015. The workshop aimed to encourage animal technologists to become more involved with the AWERB at their establishment – whether they already attended meetings or were thinking of joining. Some of the delegates had not been

aware that they could become involved, or did not know who to approach, but after the workshop felt motivated and confident to find out more and join their establishment's AWERB. A report with action points has been published in the IAT's journal *Animal Technology and Welfare*, and we were also asked to present the findings to the Oxford Branch of the IAT in December.

The second meeting was the annual **RSPCA Lay Members' Forum**, which began with a very helpful review and discussion

led by the **Home Office** on how the AWERB has performed since its inception at the beginning of 2013. Other presentations addressed the use of wild animals in research, key issues for AWERBs to consider when reviewing projects that aim to develop therapies for diseases, and an update on 'organ-on-a-chip' technology and its current potential to replace animals. Delegates took part in a discussion session on aspects of project review to conclude the day, which was a great success.

FOCUS ON SEVERE SUFFERING

Our ground-breaking work on the issue of 'severe' suffering was given further impetus during 2015 following the release of data showing – for the first time – the level of suffering that individual animals actually experience in research and testing. The [statistics](#) released by the Home Office highlighted that in 2014 around 184,000 animals experienced 'severe' suffering in the UK. This is the highest level of suffering permitted under [Animals \(Scientific Procedures\) Act 1986](#). We strongly believe that it should be possible to achieve a situation where no animal used in research and testing experiences severe suffering. Our unique initiative to reach this goal comprises of a number of approaches.

Web resources

In autumn 2015 we launched our new [Focus on severe suffering](#) website which we developed in conjunction with LASA, IAT and the Laboratory Animals Veterinary Association (LAVA). This valuable resource aims to bring together all of our most up-to-date information on severe suffering, including guidance documents, case studies and other downloadable materials.

The online materials build on our [Road Map](#) initiative (first launched in 2014) which sets out clear and practical steps to enable research establishments to reduce and avoid severe suffering. The website includes new guidance designed to help local AWERBs consider, and take steps to tackle, this issue.

We have been actively promoting this online resource to the scientific community and have given presentations at a number of national and international meetings such as the [EUSAAT](#) (European Society for Alternative to Animal Testing) Congress in Linz and the LASA Winter Meeting 2015. We will be producing additional resources on this topic during 2016 and the website will continue to be expanded.



Dr Elliot Lilley –
Senior scientific officer

“Our new web materials have been designed to be the ‘go-to’ resource for information and advice on how to work towards ending severe suffering.”

Outreach

Our outreach programme of engagement with the scientific community has continued and included accepting an invitation to run a seminar for researchers at the Max Delbrück Center for Molecular Medicine in Berlin, and delivering a symposium on practical efforts to reduce suffering as part of the [British Pharmacological Society](#) winter meeting.

Expert working groups

The output of two further expert working groups, focusing on alleviating suffering in animal models of [sepsis](#), and in [rheumatoid arthritis](#) research, were published and well received by scientists, animal technologists and the Home Office.

A fifth expert working group has been established to identify practical ways to reduce suffering in animal models of spinal cord injury and practical guidance will be forthcoming in 2016.



Major international meeting

As a result of generous sponsorship donated to the RSPCA, we are able to plan a major event on the topic of severe suffering, to be held in June 2016 in Brussels.

The meeting will bring together representatives from national governments, the European Commission, members of animal welfare bodies and national committees on the protection of animals used in science, scientists and researchers from industry and academia, vets, animal technologists and those involved in education and training. The aim will be to inspire and inform delegates by sharing experiences and expertise, encouraging and supporting people to actively avoid and reduce severe suffering within their own establishments.

ASPECTS OF UK REGULATION

We liaised with the Home Office – Animals in Science Regulation Unit (ASRU) throughout 2015, particularly as various policy areas were developed and updated. This included the drafting of official advice notes on how the revised UK legislation should be understood and implemented in relation to [Work with wild animals](#); [Use, keeping alive and reuse](#); and [Rehoming and setting free](#), along with the government's new approach towards [Testing household products](#).

In October, the [Home Office annual statistics](#) on animal use described actual severity (harms to animals) for the first time, which is one of the new requirements for reporting animal use set out in Directive 2010/63/EU. The RSPCA has long called for the publication of more meaningful information on how animals are used and what they actually experience. We believe that these new data, which must be collected and published by all 28 European Union Member States, will help to highlight where efforts to implement the 3Rs and reduce animal suffering are most urgently needed. They are also important for openness and public accountability.

On the same day as the statistics were published, ASRU also

published its [annual report](#) for 2014. This very useful publication provides details on the activities undertaken during the year by the Home Office inspectors, and staff in the policy and licensing teams, to enforce the regulations around animal research and testing. We were pleased to see that the annual report featured the results of a [survey](#) of key stakeholders (including the RSPCA) which demonstrated strong support for the important role of Home Office inspectors. However, we were once again concerned to see that the full-time equivalent resource for this team remains at just seventeen. During 2016 we will be making further representations to the government that this number should be increased.



FOCUS ON...

wild animals used in research

In the UK, recent studies licensed under the Animals (Scientific Procedures) Act 1986 have used wild animals such as seals, badgers, squirrels, rats, bats, eels, mallard ducks, gulls and pigeons.

Although this is a small percentage of the total number of animals used annually in research, the use of wild animals poses specific ethical, welfare, scientific and practical issues.

In September, the RSPCA and the Animal and Plant Health Agency (APHA) jointly convened a one-day meeting, which brought together around 70 researchers, veterinarians, animal technologists, regulators and others with an interest in the welfare of wild animals used in

regulated procedures either in the wild or in captivity. The meeting, which involved staff from both the RSPCA research animals and wildlife departments, consisted of a series of presentations and discussion, addressing a range of topics including regulations around the use of wild animals in research, reducing the impact of field procedures such as capture and trapping, reviewing and reducing the welfare impact of devices used to monitor or track animals, refining housing and care when in captivity, and assessing welfare.

A report of the meeting will be published during 2016, and as a result of the very positive feedback received from those who attended, a follow-up meeting will be organised.



rodents and rabbits

The 22nd annual Rodent Welfare Group Meeting, which we convened jointly with the Universities Federation for Animal Welfare (UFAW), was expanded to include laboratory rabbits in 2015.

Held in the autumn, the meeting began with a keynote presentation on rodent and rabbit behaviour, which included a review of the sensory capabilities of commonly used species and compared their natural habitats with the laboratory environment. Although considerable progress has been made with improving housing, husbandry and care in recent years, animals can be stressed by even refined practices and it is important to ensure that everything possible is done to cater for desirable natural behaviours and reduce anxiety. Other presenters spoke on housing preferences of laboratory rabbits, ways of improving housing

for breeding rabbits when a high level of biosecurity is required, and assessing pain in rabbits using their facial expressions. The presentations that focused on rodents included the olfactory effects of disinfectants and latex gloves on rodent welfare and behaviour, pain relief in mice, and reducing the use and improving the welfare of aged mice. The meeting ended with an update from the Home Office on its new guidance notes and UK statistics on animal use. A report of the meeting, with recommendations to help readers improve practice at their own establishments, was submitted to the Institute of Animal Technology's journal *Animal Technology and Welfare* at the end of 2015.

We were also asked to give two presentations at an international seminar on *Revisiting Refinement in the Care and Use of Laboratory*

Rodents. This was attended by researchers, animal technologists and vets from across Europe and addressed a broad range of welfare topics. Our presentations explained how suffering can be reduced in studies involving biotelemetry, and how refinement can provide incentives to reduce animal numbers and replace animal experiments with humane alternatives.



Dr Penny Hawkins –

Head of RSPCA Research Animals Department

“It’s essential to understand and respect the natural behaviour, biology and cognitive capabilities of rodents and rabbits – otherwise both animal welfare and science will suffer.”

ON THE INTERNATIONAL STAGE

The department has continued to work – particularly with colleagues in [RSPCA International](#) and [Eurogroup for Animals](#) – to promote robust regulation of animal experiments, effective ethical review, and fuller implementation of the 3Rs internationally. Our activities during 2015 included:

- Working with the European Commission, representatives from EU Member States and other key organisations to develop further guidance around the presentation of national data on the use of animals in research and testing, and on the information that should be requested from researchers by the competent authorities undertaking the project evaluation process required under Directive 2010/63/EU.
- In May we were invited and funded to deliver a presentation on the process of, and challenges involved in, assessing and weighing harms and benefits on systematic reviews and the harm-benefit assessment. The workshop was held in Norway by the University of Bergen and Norecopa.
- We participated in the 2nd Regional Meeting of Animal Welfare Experts in the Western Balkans and provided advice and information on improving animal welfare and facilitating better networks of communication amongst and between those involved in the regulation of animal experiments, the use and care of animals in research or the development and promotion of advances in the 3Rs.
- At the end of the year we were invited and funded to give a keynote presentation and advice on the training that the members of Animal Ethics Committees in South Africa should receive, and on ways of reducing the harms that animals used in research can experience. The conference took place in Pretoria, organised by the South African Association for Laboratory Animal Science.



Barney Reed –
Senior Scientific Officer

“Individuals and organisations from across the world regularly seek our expert input. Through this engagement we are making a real difference to the lives of millions of animals.”

16+ education in ethical human-animal interactions

2015 saw the start of our new initiative – building on previous work by RSPCA Education – to develop and deliver a tertiary education programme at colleges, universities and beyond. The aim is to encourage students over 16 to thoughtfully consider all aspects of animal use by humans, to identify ways in which human society impacts on animal welfare, and to empower them to act to improve the lives of those animals. Our recent activities have included:

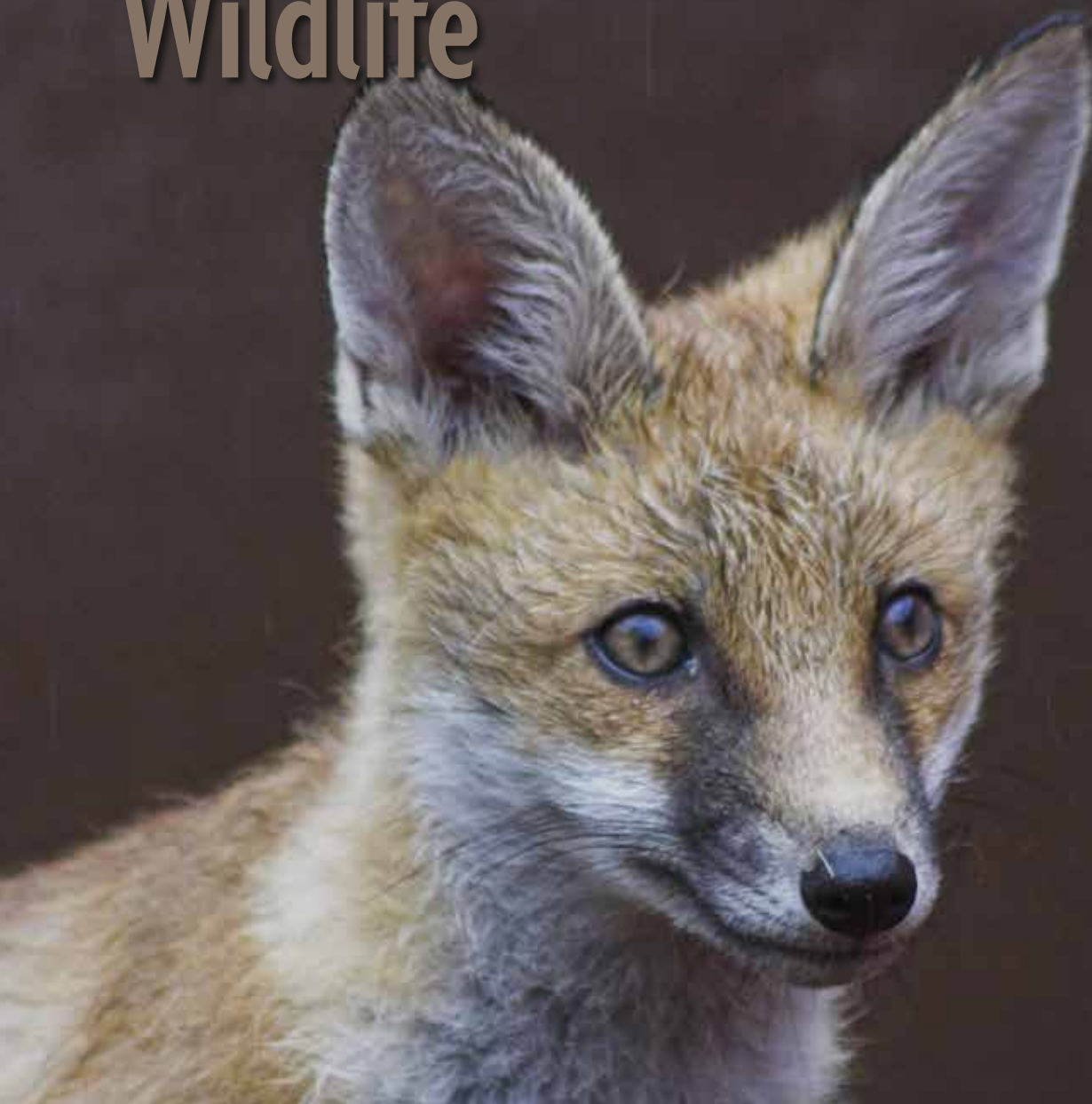
- Designing and delivering a course – *Animal Research: Critical, Challenging & Creative Thinking* – for students who are, or may be, using animals in their research. This comprises lectures and workshops, aiming to raise awareness of the significant ethical, welfare, scientific and practical issues associated with the use of animals in research, and to challenge and equip students to critically review these aspects in relation to their own studies. We trialled the course with first year PhD students at the University College London (UCL) Graduate School in February and December 2015, with very positive feedback. In September we introduced the concept and content of the course to a wider European audience in a presentation at the 19th European Congress on Alternatives to Animal Testing, hosted by EUSAAT in Linz, Austria.
- Early in 2015, the RSPCA research animals department and RSPCA Mallydams Wildlife Centre jointly ran a course at the University of Brighton for third year undergraduate social science students. The course *Animals in Society* explored how humans interact with animals – including research, farm, wildlife and companion animals – and stimulated students to consider how humans should act to minimise negative impacts on animals and maximise their welfare. Together with RSPCA Education, we will now be developing a broader range of materials along similar lines that will be suitable for students aged from 16 upwards. We aim to make these freely available on the RSPCA website.



Juliet Dukes –
Senior Scientific Officer

“Reaching new researchers early on in their careers will empower them to question the use of current experimental approaches and improve the lives of animals in the laboratory.”

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 includes: meeting with government officials and politicians to discuss wildlife issues, such as banning wild animals in circuses; responding to government consultations;

collaborating with universities and other institutions involved in the study of wild animals on a workshop on humane wild animal management; and collaborating with other organisations to end some of the more cruel aspects of our relationship with wild animals, such as working to stop the sale of glue traps.

During 2015 the four RSPCA wildlife centres took in 16,301 injured, sick or orphaned wild animals for rehabilitation. 6,728 of these animals were successfully released. These admissions consisted mainly of birds (12,165) and mammals (4,057), with intake peaking between May and August.

BADGER TRACKING

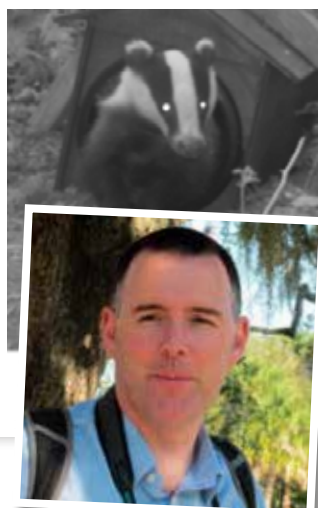
The RSPCA has been measuring the success of its wildlife rehabilitation practices by tracking a number of rehabilitated and released animals in the wild. This has been done using a variety of techniques¹ but in 2015 we tested a new method, although it is one that has been used to monitor other wild animals before².

Some mammals we release are fitted with passive integrated transponder (PIT) tags which allow the animal to be identified while in care or after it has been released, but the latter is only possible when the animal is recaptured for some reason, or found dead. We were interested in a system that would enable us to read the tags from living wild animals so we teamed up with Mike Francis of Francis Scientific Instruments.

Mike designed a system that would allow us to record pit tags in badgers, foxes and other similar sized mammals in the field. The equipment is housed inside a wooden box and includes an antenna (wrapped around the tube – see image below), a data logger, battery and cabling.



We deployed the equipment at two sites near where five badgers had been released in 2013. The tube was baited with peanuts and cameras were used to monitor activity. At the first site, the equipment was investigated by an adult badger and cub. Subsequent investigation of the tunnel by the badger allowed its PIT tag to be read, confirming the adult badger to be one of the released females. We also recorded another released badger at the second site where the equipment was deployed, so we know that at least two of the released badgers are still present and breeding, two years after release.



Adam Grogan –
Head of Wildlife

“We know that at least two of the released badgers are still present and breeding, two years after release.”

LIVING WITH WILDLIFE

The RSPCA has a long history of public engagement and has always sought to provide current, relevant information and advice. Every year the RSPCA is inundated with public enquiries relating to wild animals, often due to wild animals causing problems for people in their home or garden.

The RSPCA is opposed to killing or taking wildlife and will always seek to promote non-harmful, humane deterrents in situations where wildlife may be perceived as a problem. In the past, the RSPCA has produced a series of *Living with...* guides aimed at providing advice for people living in proximity to badgers, foxes, grey squirrels and nesting birds. In 2015, as well as updating the existing *Living with...* fact sheets, new guides have been produced to cover hedgehogs, moles, deer, reptiles, amphibians, gulls, Canada geese and pigeons.

These fact sheets are intended to help people manage and interact with wildlife in a positive and humane manner, particularly those species they may share their garden or home with.



Each document contains a broad range of practical and informative guidance for specific species, including:

- detailed humane deterrence advice
- guidance on common problems associated with the animal (e.g. gulls being noisy in the morning)
- general ecological information
- information on current legislation
- advice on encouraging wildlife species in gardens
- what to do when finding a sick, injured, orphaned or hibernating animal.

In 2016, the department will aim to further expand the series of *Living with...* fact sheets – including guides for bats, mice and rats, rabbits and hares, birds of prey, ‘pond predators’ and more.



Llewelyn Lowen –
Scientific Officer

“The RSPCA is opposed to killing or taking wildlife and will always seek to promote non-harmful, humane deterrents in situations where wildlife may be causing a perceived problem.”

¹Grogan A. and Kelly A. 2013 A review of RSPCA research into wildlife rehabilitation. *Vet Record*

²Smyth, B. & Nebel, S. (2013) Passive Integrated Transponder (PIT) Tags in the Study of Animal Movement. *Nature Education Knowledge* 4(3):3

ELEPHANT WELFARE IN ZOOS

The RSPCA believes that elephants should not be kept by zoos because of the significant and widespread welfare problems they suffer. Nonetheless, we are committed to improving, as much as possible, the lives of elephants already kept in zoos.

Research commissioned by the RSPCA in 2000 revealed for the first time the scale and severity of problems experienced by elephants in European zoos. Among them were very curtailed lifespans, high infant mortality rates, low breeding rates and prevalent abnormal behaviours. Populations were also found to be unsustainable without further importation from the wild.

Further UK Government-commissioned research followed, focusing on UK zoos, part-funded by the RSPCA. This confirmed concerning levels of obesity, lameness, foot problems and abnormal repetitive behaviours. Concern was such that in 2011, the then Animal Welfare Minister Lord Henley tasked an existing zoo industry elephant group with driving forward a series of improvements. Zoos were given until 2021 to show that elephant welfare has improved or risk having to phase out elephant keeping in the UK altogether.

A representative of the wildlife department, who co-authored the original RSPCA-funded report whilst at Oxford University, sits on the British and Irish Association of Zoos and Aquariums (BIAZA) Elephant Welfare Group, pushing for the dramatic changes needed to secure a better life for the 60 elephants in 14 UK zoos.

January 2016 represents the halfway point when the group is required to report on progress to the UK Government. Much of the first five years has been spent developing welfare assessment systems. This, coupled with limited resources and disappointing levels of engagement from zoos, means progress has been frustratingly slow. Measuring elephant welfare and encouraging zoos to implement recommendations will be the focus of the final five years with the aim of ensuring the UK Government has the information needed to decide the future of elephants in UK zoos.

“Zoos were given until 2021 to show that elephant welfare has improved or risk having to phase out elephant keeping in the UK altogether.”



Reptiles as pets

Rescuing, rehabilitating and rehoming reptiles is an important focus for the RSPCA, as the number of animals we are called about continues to rise. In 2015, we received 4,990 calls about 10,352 reptiles³ – a 72 percent increase in the number of reptiles compared to 10 years ago.

In order to manage this increase, we are developing facilities and training more of our animal centre staff on how to care for these complex animals. This has been complemented by the production of new care information on five of the most commonly kept reptiles.

We now have care sheets and videos on how to set up a vivarium, to help keepers to look after these animals properly and ultimately prevent the health problems reptiles are susceptible to when their needs are not properly met. These are now available online at:

www.rspca.org.uk/exoticpets.

Reptiles had strong presence in the press in 2015, including the case of the bearded dragon – native to Australia – (pictured right, before and after

rehabilitation) that was sent via Royal Mail in a cardboard box. He was so weak and cold, he very nearly didn't survive as he had existing health problems, typical of reptiles kept incorrectly. The bearded dragon is now being cared for by exotics specialists and may be able to be rehomed soon, though he is likely to have ongoing health problems and a shortened lifespan due to his ordeal

In July, the RSPCA wildlife team were invited to present our work on exotic pets to the Federation of British Herpetologists at their annual conference. This continued positive discussions about how we can work together to improve welfare for reptiles kept as pets.



Alexandra Jones –
Scientific Officer – Exotics
and Wildlife Trade

“The RSPCA believes that some animals are never suitable as pets. This is why we would never produce care information for those species, such as primates, whose needs can never be met in captivity.”



Bearded dragon



³ The actual number will be higher as these data do not include those taken directly, or abandoned at our centres.

RSPCA wildlife centres

RINGING BIRDS IN RSPCA WILDLIFE CENTRES

The RSPCA has been rehabilitating wild animals for over 50 years. Much of the work undertaken by those early pioneers was experimental, and with the assumption that if the bird survived the initial stages of rehabilitation, then there could be reasonable confidence about their post-release survival. The focus at that time was on techniques to rear orphans, treat wounds, provide appropriate accommodation or simply to remove oil from a seabird.

In 1965 the first established wildlife units at RSPCA Mallydams Wood in Sussex and RSPCA West Hatch in Somerset began to ring rehabilitated birds with the intention of finding out if the techniques used were robust and if good post-release survival rates were being achieved.

Early results indicated that although some orphaned animals were surviving for a time after release, the numbers ringed were too low to make assumptions that all the released birds survived.

The cleaning of oiled seabirds has always been a controversial topic and ringing clean birds is one method to assess the effectiveness of the procedures. Results from the recoveries of many oiled birds before 2003 (Joys *et al.*, 2003) showed that the mean number of animals surviving after the first month was less than 10 percent. These findings highlighted the need for more effective methods of rehabilitation as well as studying and improving post-release survival.

In the last 20 years all four wildlife centres have ringed more than 44,000 birds from 154 species, giving a greater scope for more challenging data analysis. Results from long-term ringing show that many common species are surviving for several years after release (Table 1). Similarly, studies of certain taxa have shown the survival of artificially reared animals is similar to that of wild counterparts; for example in orphaned gulls and mute swans (*Cygnus olor*). Survival rates for oiled birds, specifically guillemots (*Uria aalge*), have increased after stressing the importance of comprehensive triage criteria on admission, more veterinary treatment and a refined pre-release assessment.

The ringing of avian species to evaluate the costs and processes involved in returning an animal back to the wild, as well as to measure subsequent survival, has never been more significant when coupled with the emphasis on humane treatment of wild animals.

Table 1: A selection of post-release survival records for individual birds rehabilitated by RSPCA wildlife centres

Species	Ring number	Post-release survival (No. of days)
Great Crested Grebe (<i>Podiceps cristatus</i>)	HT09191	1241
Cormorant (<i>Phalacrocorax carbo</i>)	1342177	3251
Gannet (<i>Morus bassanus</i>)	1365703	3033
Lesser black-backed Gull (<i>Larus fuscus</i>)	GN60097	2691
Herring Gull (<i>Larus argentatus</i>)	GF55881	4636
Black-headed Gull (<i>Chroicocephalus ridibundus</i>)	EF59025	6021
Grey Heron (<i>Ardea cinerea</i>)	1090179	4747
Guillemot (<i>Uria aalge</i>)	TI9394	1841
Mute Swan (<i>Cygnus olor</i>)	U5600	5984
Canada Goose (<i>Branta canadensis</i>)	5162799	2941
Shelduck (<i>Tadorna tadorna</i>)	GJ95096	2638
Common Scoter (<i>Melanitta nigra</i>)	GF15169	5177
Sparrowhawk (<i>Accipiter nisus</i>)	EL12074	2752
Buzzard (<i>Buteo buteo</i>)	GH23765	8612
Kestrel (<i>Falco tinnunculus</i>)	EL02649	3145
Tawny Owl (<i>Strix aluco</i>)	GH23060	3735
Wood Pigeon (<i>Columba palumbus</i>)	FP44876	2544
Collared dove (<i>Streptopelia decaocto</i>)	EL76398	1613
Robin (<i>Erithacus rubecula</i>)	P884886	2354
Blackbird (<i>Turdus merula</i>)	RR75881	1735
Mistle Thrush (<i>Turdus viscivorus</i>)	CL95889	817
Great Tit (<i>Parus major</i>)	R577041	674
Magpie (<i>Pica pica</i>)	EL12091	1666
Jackdaw (<i>Corvus monedula</i>)	EL02588	2466
Carrion Crow (<i>Corvus corone</i>)	FP73923	1243
Dunnoek (<i>Prunella modularis</i>)	L551142	745
Chaffinch (<i>Fringilla coelebs</i>)	H634992	548
Greenfinch (<i>Carduelis chloris</i>)	TC67376	779
Goldfinch (<i>Carduelis carduelis</i>)	V504662	803



POST-RELEASE SURVIVAL AND DISPERSAL OF ORPHANED FOX CUBS FOLLOWING REHABILITATION

RSPCA Stapeley Grange Wildlife Centre

The rehabilitation of orphaned red foxes (*Vulpes vulpes*) involves many months of intensive care, weeks of pre-release planning and the commitment of staff and volunteers over several weeks during the soft release process.⁴

Over a ten-year period (2005–2014) RSPCA Stapeley Grange admitted 1,266 foxes, 505 (39.9%), 646 (51%) and 115 (9.1%) were classed as adults, sub-adults and cubs respectively. In terms of foxes released, 108 (21.4%) adults, 325 (50.3%) sub-adults and 83 (72%) cubs were returned to the wild. Of these, 350 were released using a soft release (support feeding) protocol.

Our four-year research project looked to investigate what happens to hand-reared fox cubs, post-release. Between 2012 and 2015 we collared and attempted to track 25 juvenile foxes, using GPS-GSM (Global Positioning System – Global System for Mobile) collars. The foxes were released in Cheshire, Shropshire and Staffordshire. Our collars used satellites to generate GPS coordinates of each fox's position. Over the four-year period eight fox collars (32%) were dropped remotely or as planned using the collar's programmed settings; the remaining foxes had the following outcomes:

- **Five foxes (20%) were believed shot (three confirmed, two suspected),**

- **Four (16%) foxes were victims of confirmed or suspected road traffic accidents, (one collar was removed from a fox that was later put to sleep following a RTA).**
- **One (4%) fox was found dead – cause unknown.**
- **Seven (28%) collars malfunctioned due to issues with the batteries or were damaged by other fox cubs in the group during captivity.**

Of the 18 foxes with working collars, 17 (94%) were alive after 14 days (one was remotely dropped after 11 days) and 12 (67%) were alive after 28 days. Nine (50%) of the foxes were still alive when the collars were dropped or removed. On average, foxes were tracked for 44.8 days post release, ranging from 11 to 100 days.

Results to date would seem to suggest that although we are releasing foxes 'fit for purpose', they are susceptible to road traffic accidents and to being shot after leaving the release site area. This is similar to what happens with wild reared foxes when they disperse from their natal sites.



“Our four-year research project looked to investigate what happens to hand-reared fox cubs post-release.”

⁴ In which the animals are housed in a 'soft release pen' at the release site and given support food daily. After 7–10 days they are let out of the pen (the pen will remain with the door open) and support fed for another two to three weeks.

IMPACT OF ENVIRONMENTAL ENRICHMENT ON COGNITIVE DEVELOPMENT IN REHABILITATED GULL AND JACKDAW CHICKS –

RSPCA West Hatch Wildlife Centre

Various behavioural projects are carried out at RSPCA West Hatch Wildlife Centre in collaboration with university students. This is an important part of our work and the data collected can have practical applications in improving the health and welfare of animals in rehabilitation as well as their chances of survival post-release.

In 2015 we commenced a project looking at the effects of environmental enrichment during the developmental period of gull (lesser black-backed *Larus fuscus* and herring *Larus argentatus*) and jackdaw (*Corvus monedula*) chicks on cognitive ability. Enrichment has been shown to lead to enhanced wellbeing, along with improved learning and memory.

In this project, the birds were identified with coloured leg-bands; a normal management technique used within the centre to monitor the progress of individual birds throughout the rearing process. Young birds of the same species were grouped together; some groups were exposed to novel objects, such as

coloured balls, while other groups were reared normally. How the groups interacted with novel objects at a later stage in their development was then assessed. During the project the gulls were observed directly, while the jackdaws had to be observed remotely, by filming.

The data from the project is still being analysed. However, the preliminary results show that gull chicks exhibited great interest in the novel objects from soon after introduction, picking them up and carrying them around their enclosures. The jackdaws however, appeared less keen to interact. This was anticipated, as corvids are well known for exhibiting neophobia – a fear of new or unfamiliar objects.

“Enrichment has been shown to lead to enhanced wellbeing, along with improved learning and memory.”



Responses to consultations

Department for Environment Food & Rural Affairs (Defra)

- DEFRA Codes of Practice for the Welfare of Dogs and Cats
 - DEFRA Animal Licensing Schemes
 - DEFRA Review of the effectiveness of the welfare of racing greyhound regulations 2010
- Defra questionnaire on local authority animal-related licensing
 - Defra consultation on proposed changes to licence conditions for licences to cull badgers to control bovine TB
 - Defra consultation on changes to Schedule 9 of Wildlife and Countryside Act (through Wildlife and Countryside LINK)
- TB post-movement testing
 - Non-bovine TB testing
 - Public Procurement Plan for Food – consultation on the Balanced Score Card

Home Office

- Animals in Science Regulation Unit – Inspections Survey
- Advice Note on *Use, keeping alive and re-use*
- Advice Note on *Work with wild animals*
- Advice Note on *Rehoming and setting free of animals*
- Advice Note on *Policy on testing of household products*

World Organisation for Animal Health (OIE)

- OIE Broiler Standards
- OIE Dairy Cattle Standards

Other

- Environment, Food and Rural Affairs Committee (EFRA) select committee inquiry into greyhound welfare
 - Neath Port Talbot County Borough Council Animal Welfare (Breeding of Dogs) (Wales) Regulations 2014, Welsh Local Authority License Conditions
 - Welsh Government Consultation: Compulsory Microchipping of Dogs
- Quinquennial review of the NC3Rs 2014/15

Companion animals Farm animals Research animals Wildlife

Publications

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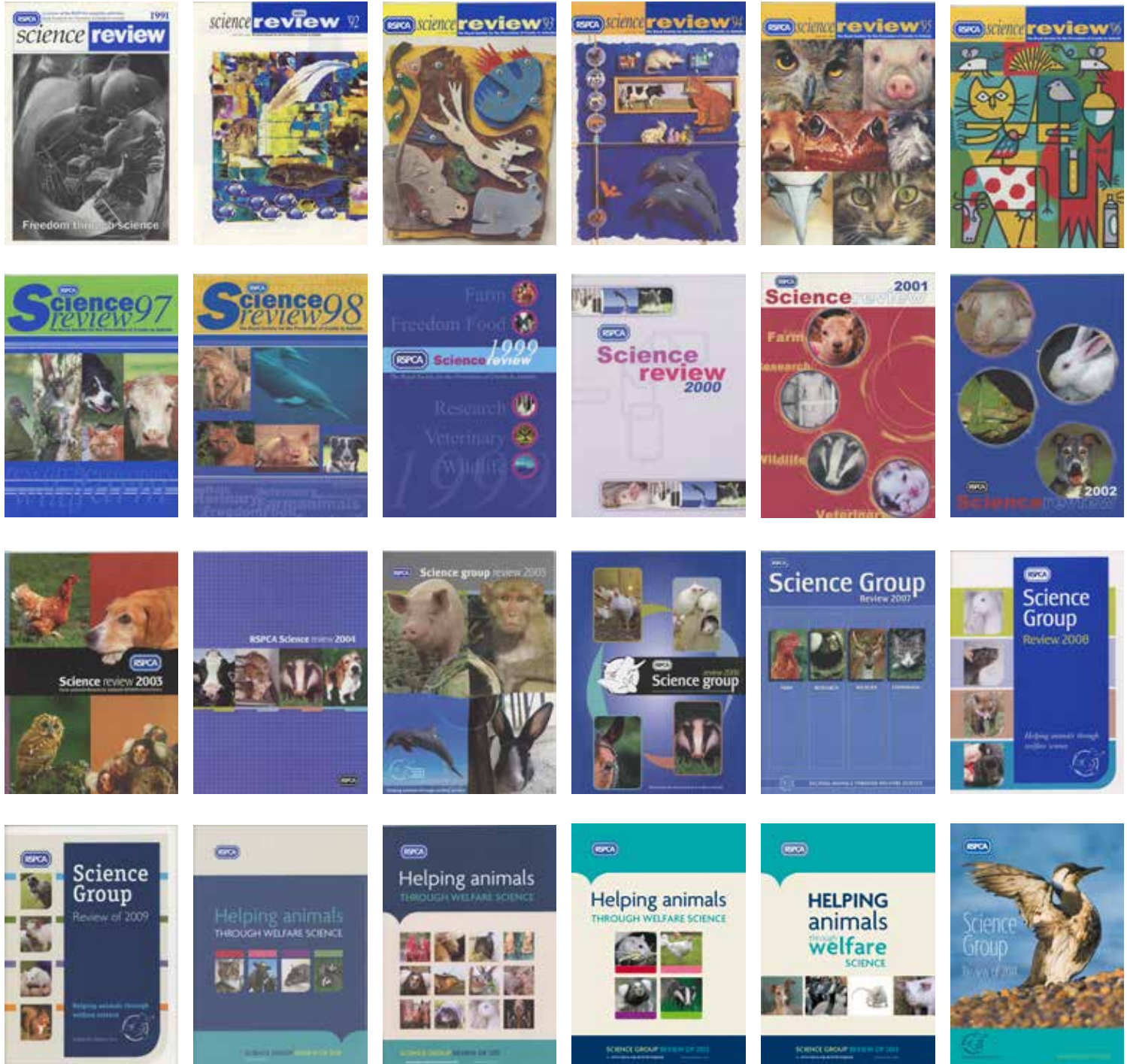
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