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Despite growing public concern, the appreciation of the welfare needs of wild animals is often inadequate. The RSPCA wildlife department seeks to improve welfare provisions for captive and free-living wild animals. This is achieved through research, promotion of an awareness of the requirements of animals, and an emphasis on a precautionary and humane approach to human interactions with wild animals.

## Deer welfare

The RSPCA has provided data on over 16,000 deer-vehicle collisions, spanning seven years, to the National Deer-Vehicle Collisions Project. As the largest single contributor of data, the Society helped the team, led by Dr Jochen Langbein, calculate that an estimated 34,000-60,000 deer are injured or killed on English roads every year, and 40,000-70,000 across the whole of Britain.

Many do not die instantly, making this perhaps the most significant welfare problem facing wild deer today. Results published this year<sup>1</sup> also show that accident 'hotspots' are not

**directly related to deer density, but rather depend on a combination of deer numbers, road density and traffic volumes, suggesting that simply culling more deer will not address the problem.**

Changes to deer legislation that came into force this year will have consequences for deer management and welfare. The Society made representations during the consultation and parliamentary scrutiny process.

A closed season was introduced for Chinese water deer and for deer hybrids. Some less powerful rifles will be allowed for muntjac and

Chinese water deer but proposals to allow their use for roe deer were dropped.

Killing deer during the closed season and at night will now be permitted under license for certain defined purposes but the Society pressed for safeguards to ensure such licences were exceptional and not used as another avenue for population control.

The closed season has been shortened but this is considered to present minimal additional welfare risk.

<sup>1</sup> See [www.deercollisions.co.uk](http://www.deercollisions.co.uk)

## Wild animals in circuses

Life for a circus animal consists of frequent transport, restricted movement, impoverished social and physical environments, loud noises and exposure to crowds of unfamiliar people. As a result, their welfare is likely to be severely compromised. The RSPCA would like to see an end to the use of all animals in circuses and therefore welcomed the government's commitment last year to ban the use of certain non-domesticated species in travelling circuses under the Animal Welfare Act's secondary legislation.

As a member of Defra's Circus Working Group (CWG), the RSPCA submitted scientific evidence relating to the transportation and housing of wild animals in circuses. Unfortunately, performance and training were explicitly excluded, despite protests that these form a fundamental part of circus life and have a significant bearing on animal welfare.

Further shortfalls in the process were revealed with the publication of the CWG Chairman's report. For instance, the panel of academics

tasked with reviewing the submitted scientific evidence were asked to go beyond their areas of expertise with a remit to consider the evidence 'to support a ban'; the decision to ban or not is a question for Parliament, taking into account scientific evidence as well as moral and ethical considerations. In contrast to the Chairman's conclusions, the Society believes that this combination of evidence forms a sufficient rational basis to prohibit the use of wild animals in circuses.



## Badger cull

After almost a decade of research, the government-appointed Independent Scientific Group on Cattle TB (ISG) published their final report on the use of badger culling as a means to control the spread of bovine tuberculosis (bTB) in cattle. The key conclusions were, firstly, that while badgers are a source of TB in cattle, badger culling can make no meaningful contribution to cattle TB control in Britain. Culling could make matters worse. Secondly, weaknesses in cattle testing regimes meant that cattle contributed significantly to the persistence and spread of disease. The ISG's advice was that cattle-based control measures alone were likely to be an effective means of combating the spread and rising incidence of bovine TB.

In light of this, the Society made further representations to the Welsh Assembly Government and the Environment, Food and Rural Affairs Select Committee to highlight the lack of scientific support for a badger culling strategy. The Society was therefore astonished

when the government's chief scientific adviser – Sir David King – subsequently came out in support of a badger cull. His conclusions, based on a brief review, were heavily criticised by the scientific community and the ISG produced a robust defence of their work. The independent statistical auditor to the culling trial described King's report as "unbalanced and inexperienced", but commended the ISG report as "an exemplar of how to bring high quality science into public decision-making".

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*badger culling can make no meaningful contribution to cattle TB control*

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At the time of writing, parliamentary committees in England and Wales are still considering the issue. Defra have said that they will take account of those views before making a policy announcement. In Wales, the Minister has said it is their intention to have a detailed TB eradication plan in place by April.



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## Ethics and wildlife rehabilitation

Susie Molony, of Bristol University, has now completed her doctoral thesis, which was carried out in collaboration with the RSPCA's wildlife department and wildlife centres. Susie investigated several factors that could influence the rehabilitation of wild animal casualties. Her key findings are summarised below:

- a review of admission data for eight species (badger, fox, hedgehog, bat – *Pipistrellus spp.* – blackbird, house sparrow, starling, tawny owl) found that the severity of injury/illness predicted whether the casualty would survive to be released<sup>1</sup>
- directly translocated hedgehogs had significantly lower survival rates than rehabilitated hedgehogs, wild hedgehogs and translocated hedgehogs kept for a short time in captivity prior to release<sup>2</sup>
- stress levels in hedgehogs were determined by measuring the level of glucocorticoid metabolites in their faeces – metabolites levels increased during the first few days in captivity, indicating a physiological reaction to the stress of capture

and captivity which may explain the low survival in directly translocated hedgehogs

- the question of whether certain animals are predisposed to coming into care was investigated using data on individual characteristics of birds caught by cats, but no supporting evidence was found.

Many of her recommendations to the Society have already been put into practice, such as a new database that allows the recording of much more information than was previously possible.

There is still more work to do and the development of an indirect stress measure is of great interest; when treating sick animals, we need to know how they are affected by our treatment, as the stress of care and captivity could prevent them from making a rapid recovery.

1. Molony S E, Baker P J, Garland L, Cuthill I C, Harris S (2007) *Factors that can be used to predict release rates for wildlife casualties.* Animal Welfare 16, 361-367.

2. Molony S E, Dowding C V, Baker P J, Cuthill I C, Harris S (2006) *The effect of translocation and temporary captivity on wildlife rehabilitation success: An experimental study using European hedgehogs (Erinaceus europaeus).* Biological Conservation 130 (4), 530-537.



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# RSPCA wildlife centres review

The RSPCA wildlife centres continue to strive for a better understanding of the casualties in their care. Numerous research projects have been undertaken this year to investigate post-release survival in several species. Techniques such as radio tracking are used, as well as simpler methods such as marking, e.g. ringing birds and relying on re-sightings for information on how long these animals survive and how far they have travelled.

Some of this work is carried out in conjunction with the wildlife department and has been promoted widely at various conferences and symposia. In addition, the wildlife department and centres continue to develop species rehabilitation protocols, based on best practice and sound science.

## RSPCA Stapeley Grange Wildlife Centre

### Post-release survival of orphaned polecats

Although once found throughout Great Britain, the polecat (*Mustela putorius*) was almost driven to extinction as a result of persecution by gamekeepers. Until recently, its main stronghold was Wales, with small populations in bordering counties. Over the last decade or so, the species has started to spread eastward and it is now widespread in Cheshire, Shropshire and Staffordshire.

At the RSPCA Stapeley Grange Wildlife Centre, between 2000 and 2007, we received 91 polecats, 67 (74 per cent) of which were orphans. Although our release rate is very high (90 per cent), we have very little information on their post-release survival. In 2005, we started a project to measure their survival and behaviour. Prior to release the animals were anaesthetised

for a final health check and fitted with 15g radio-tracking collars, which were designed to fall off after a few months. Between 2005 and 2006, we radio-tracked 12 polecats at sites in Cheshire and North Wales and trapped one further polecat after release.

The post-release survival of these animals ranged from 3-170 days (for those that we know died). Those animals which either shed their collars or for which we lost the signal were tracked for between 11 and 94 days. We found that 50 per cent of radio-tracked polecats died as result of road traffic collisions (RTC). The results suggest that the polecats are able to survive independently but that RTCs are a major cause of death. A further 10 polecats were released in October 2007 and are currently being tracked, bringing the sample size to 22. We hope to publish the results of this project in 2008.



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ROB SCRIVENS



## Rehabilitation and post-release survival of oiled birds

Large-scale oil spills present a significant threat to seabirds and other wildlife. In 2007, the grounding of the MSC Napoli off the south coast of Devon in January resulted in an oil slick that spread from the vessel. Thousands of birds were affected along 50km of coast. An emergency RSPCA team was mobilised to deal with the disaster, involving staff from a range of departments and staff from all four RSPCA wildlife centres. Most birds were treated at RSPCA West Hatch and RSPCA Mallydams Wood wildlife centres.

The first oil stricken birds were gathered up on the day of the grounding. After being weighed and given fluid therapy at the beach, birds were transported to RSPCA West Hatch Wildlife Centre, which received over 1,000 oiled birds – primarily guillemots (see Table 1) – over the course of two weeks. The sheer number of birds put a great strain on staff and the small army of volunteers drafted in to help, and so 222 of the stabilised birds were transferred to RSPCA Mallydams Wood Wildlife Centre to share the workload. A further 40 were transferred to RSPCA Stapeley Grange Wildlife Centre.

Rehabilitation was carried out according to the RSPCA's current protocol, which was adopted in 2000 after evidence of low post-release survival was reported in 1997<sup>1</sup>. The new rehabilitation

technique requires a longer period in care as well as more intensive pre-release assessments than previously used. The RSPCA wildlife centres now also make use of deep pools to assess waterproofing and increase the fitness level of the birds before release.

*over 1,000 oiled birds  
were admitted to RSPCA  
wildlife centres in 2007*

Data was gathered at every opportunity, including biometric measurements, plumage type and blood tests. As well as forming part of the assessment process, these data help determine how successful the rehabilitation process has been and identify factors that could predict the likelihood of release for casualties of future oil spills.

Rehabilitation work continued at the centres until April and despite the heavy degree of oiling on most casualties, over 40 per cent of admissions were released. Only five per cent of birds died during the rehabilitation process, a tribute to the effective triage undertaken on the beach and within the first 48 hours in care. The remaining 55 per cent were euthanased to reduce any further suffering.

Initial data analysis suggests that the refined rehabilitation protocol, although placing a greater strain on resources, has been worthwhile, with greater post-release survival rates recorded in birds in the first two weeks after release. A thorough analysis of data gathered by wildlife centre staff has also revealed that adult guillemots taken into care whilst still in reasonably good condition and which receive rapid first aid have the best chance of survival in care. These results have been prepared for publication in a scientific journal.

The RSPCA has a long history in the rescue and rehabilitation of oiled birds and strives to be at the forefront of research in this area. Techniques and protocols have been modified and improved over the years to provide the best possible treatment for oiled casualties.

**Table 1. Oiled birds admitted between January 19th and February 5th 2007**

Species	No.
Guillemot	960
Razorbill	40
Great northern diver	4
Shag	3
Herring gull	2

<sup>1</sup> Wernham, C.V., Peach, W.J., Browne, S.J., 1997. *Survival rates of rehabilitated guillemots*. British Trust for Ornithology Research Report 186.



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## Assessing the body condition of seals

Each year the RSPCA East Winch Wildlife Centre rehabilitates and releases over 100 seals that have stranded along the coasts of England and Wales. The centre has specialised facilities for caring for large numbers of sick and injured seals, as well as other wildlife.

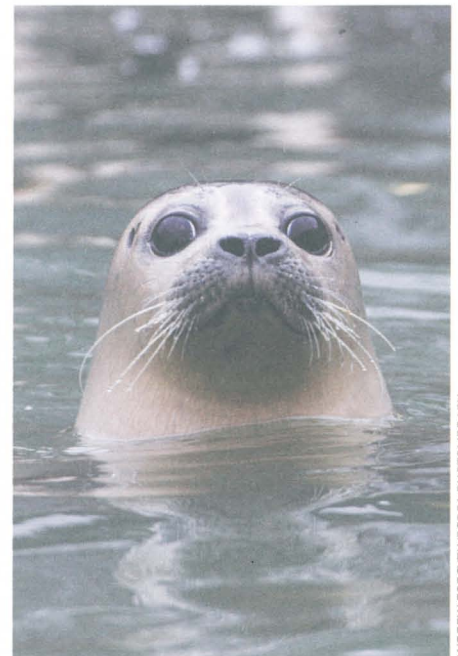
The majority of the seals admitted are juveniles suffering from varying degrees of starvation, which is usually secondary to other problems such as early maternal separation, mal-adaptation to independence, lungworm burdens and other injuries.

Monitoring their body condition is one crucial part of the rehabilitation process – to ensure they are gaining adequate fat reserves to survive in the wild after release. Most fat in seals is laid down beneath the skin as blubber, and it is possible to assess the depth of this fat using an ultrasound scanner. Ultrasound scanning is relatively quick, non-invasive, and involves minimal handling and no additional stress to the seal.

A collaborative project between East Winch Wildlife Centre and an MSc student from the University of London analysed body fat reserves

in 27 common seals during rehabilitation and just prior to release. They found that the current feeding protocols produce good gains in fat deposition, and the total body fat of seals at release compares well with wild counterparts of good nutritional status.

Pitcher KW, Calkins DG, Pendleton GW (2000) *Steller sea lion body condition indices*. *Marine Mammal Science* 16: 427-436.



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## External funding

The following RSPCA-funded projects relating to wildlife were completed or in progress in 2007.

- Analysis of nine years worth of oiled bird data collated by RSPCA wildlife centres – to identify factors critical for the successful rehabilitation of oiled birds.
- Welfare implications of mole control – a three-year research project by Oxford University on the necessity for mole control and the efficacy and welfare implications of controlling any damage caused.

## Scientific publications

Staff from the RSPCA wildlife department and wildlife centres have prepared papers on a variety of topics for publication in peer reviewed scientific journals.

- Kelly A, Thompson R, Newton J (in press) *Stable hydrogen isotope analysis as a method to identify illegally trapped songbirds*. *Science & Justice* doi:10.1016/j.scijus.2007.09.012.
- Pulquério M J F, João Cruz M, Oaten P, Thompson R, Grantham M, Thomas T (submitted). *Factors affecting the rehabilitation of oiled guillemots (Uria aalge)*.
- Leighton K, Chilvers D, Charles A, Kelly A (in prep.) *Post-release survival of hand-reared tawny owls (Strix aluco) based on radio tracking and leg band return data*.
- Kelly A, Goodwin S, Grogan A, Mathews F (in prep.) *Post-release survival of hand-reared pipistrelle bats (Pipistrellus spp.)*.



## Influencing decision makers

Scientific staff from the RSPCA's wildlife department promote the Society's agreed policies, aims and objectives through advocacy to government, statutory bodies and other organisations at the highest technical level. They are members of many national and international committees and working groups and also have key input into a range of consultations, both to government and non-governmental bodies, on a wide range of wildlife issues.

Below are just a selection of the committees that staff are members of, meetings and events they have participated in and consultations to which they have responded during 2007:

### REPRESENTATION ON EXTERNAL COMMITTEES

- The Deer Initiative.
- Ashdown Area Deer Group.
- Defra Zoos Forum.
- Defra Animal Welfare Act secondary legislation working groups:
  - primates as pets
  - wild animals in circuses
  - performing animals ● sale of pets.
- British Wildlife Rehabilitation Council (BWRC) steering committee.
- Species Survival Network (SSN) board.
- World Conservation Union's otter specialist group.
- Wildlife and Countryside Link wildlife and trade working group (Chair).

- Whalwatch coalition.
- The Mammal Society.
- The England Squirrel Forum.

### CONSULTATION RESPONSES

#### Defra:

Wildlife Health Strategy for England.

- Delivering Good Animal Welfare: A draft strategy under the Animal Health and Welfare Strategy.
- The Conservation (Natural Habitats, &c.) (Amendment) (England and Wales) Regulations 2006.
- Registration of species listed on Schedule 4 of the Wildlife and Countryside Act 1981.
- Consultation on the Draft Mutilations (Permitted Procedures) (England) Regulations 2007 for GB.

#### Non-Native Species Secretariat:

- The Invasive Non-Native Species Framework Strategy.

### MEETINGS AND EVENTS

- 14th meeting of the Conference of the Parties, CITES – lobbied member governments as part of Species Survival Network to maintain/increase protection for wildlife from international trade.
- House of Commons select committee on badgers and bovine TB – gave oral evidence.
- Post-Release Monitoring Workshop, International Wildlife Rehabilitation Council (IWRC) – an introduction for rehabilitators

from the USA and other countries to some of the techniques used by the RSPCA.

- Participated at Annual Bovine TB Conference for GB.
- Presentation at the Badger Trust conference – *An introduction to the Animal Welfare Act and summary of results from cub tracking study at RSPCA West Hatch Wildlife Centre.*
- Participation in the Defra-led European Bat Lyssavirus liaison group.
- Meeting with Joint Nature Conservation Committee and Natural England regarding the Napoli oil spill – lessons learnt, and emergency planning.
- Meeting with Marine Animal Rescue Coalition regarding threat of disease outbreak in British seals after unusual seal mortality in Denmark.
- Workshop with Bat Conservation Trust on bat rehabilitation – a meeting of bat rehabilitators to discuss a bat rehabilitation protocol and changes to the legislation.
- Sixth International Conference on Fertility Control for Wildlife.
- Sixth European Vertebrate Pest Management Conference.
- Red Squirrel Rehabilitation meeting – discussed the possibility of RSPCA Stapeley Grange Wildlife Centre being used as a quarantined facility for the treatment of injured red squirrels.



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