



the british  
psychological society  
research board

# Guidelines for psychologists working with animals

March 2020



## GUIDELINES REVISIONS ACKNOWLEDGEMENTS

---

**PROFESSOR HELEN CASSADAY**, Lead  
Reviewer, University of Nottingham

**DAVID CARPENTER**, BPS Ethics Committee

**CAROL HALL**, Nottingham Trent University

**WANDA MCCORMICK**, University  
of Northampton

**MARINA DAVILA-ROSS**, University  
of Portsmouth

**IAN DEVONSHIRE**, University of Nottingham

**MARK PRESCOTT**, NC3Rs

If you have problems reading this document and would like it in a different format, please contact us with your specific requirements.

Tel: 0116 254 9568; email [P4P@bps.org.uk](mailto:P4P@bps.org.uk).

© 2020 The British Psychological Society

These guidelines have been produced by the Research Board of the British Psychological Society. First published 2007.

Published by The British Psychological Society, St Andrews House, 48 Princess Road East, Leicester LE1 7DR.

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording or any information storage retrieval system, without permission in writing from the publisher.



# Contents

<b>Working with animals in psychology</b>	<b>5</b>
<b>1. Legislation</b>	<b>7</b>
<b>2. Replacing the use of animals</b>	<b>7</b>
<b>3. Choice of species and strain</b>	<b>8</b>
<b>4. Number of animals</b>	<b>8</b>
<b>5. Regulated laboratory procedures</b>	<b>9</b>
<b>6. Procurement of animals</b>	<b>12</b>
<b>7. Animal care</b>	<b>13</b>
<b>8. Disposing of animals</b>	<b>13</b>
<b>9. Animals in psychology teaching</b>	<b>14</b>
<b>10. The use of animals for therapeutic purposes</b>	<b>15</b>
<b>11. Clinical assessment and treatment of animal behaviour</b>	<b>15</b>
<b>Obtaining further information</b>	<b>16</b>
<b>References</b>	<b>17</b>
<b>Appendix 1: Websites for additional reference</b>	<b>20</b>



IT IS NECESSARY  
TO FOLLOW  
RELEVANT  
LEGISLATION  
WHEN WORKING  
WITH ANIMALS

# Working with animals in psychology

Psychologists work with animals<sup>1</sup> for a variety of reasons. The most obvious use is in research, including studies where animals are the primary subjects, for example there has been some growth in studies of the cognitive capacities of different species (e.g. dogs and horses). In studies of this kind, the primary beneficiary is likely to be the animal species in question. Historically invasive studies of ‘animal models’ (of which humans are the intended beneficiary) and of the neural substrates of normal behavior have commanded most attention in the general media. Animals (or simulations of their behaviour) are also still sometimes used in practical teaching within psychology degree programmes. However, these do not exhaust the possible ways in which psychologists, in their professional capacity, may work with animals. For example, there is increasing use of animals in various forms of psychological therapy with people, or to advise on therapy for animals whose behaviour appears disordered in some way. Psychologists may also find themselves involved in the training and use of animals for commercial purposes. Many psychological studies involve no more than the observation of the animals but even observational studies can have unintended consequences; some research questions cannot be answered adequately without more invasive studies; and all studies of captive animals necessarily involve keeping animals in confinement. Studies of free-living animals in their natural habitat may involve disruption of their environment, habituation to humans, brief capture for marking or attachment of a tracking or telemetry device.

The British Psychological Society has produced the following guidelines for the use of all members who are engaged in psychological activities involving living animals. The majority of animal use in psychology is in research, and, if involving scientific procedures that may

cause pain, suffering, distress or lasting harm to a ‘protected’ animal species, is governed by the Animals (Scientific Procedures) Act 1986, amended 2012 (see Section 5 below).

Protected animals comprise all non-human vertebrates and cephalopods. Protection initially restricted to *Octopus vulgaris* has since been extended to all octopi and cuttlefish and squid which have common ancestry (Sanchez et al., 2018). These cephalopods have high head-body ratios and show impressive cognitive abilities (Darmaillacq et al., 2014). In general researchers should be mindful that the cognitive capacities of other species may be under-estimated and there is evidence invertebrates of all kinds have the capacity to suffer (see, for example, Sherwin, 2001).

These guidelines will first provide an outline of the legal responsibilities of members of the Society whose research is governed by the Animals (Scientific Procedures) Act 1986. The guidelines should also be taken into consideration where any work is not governed by this Act, as a source of information for best practice. Psychologists working with animals in ways that are not covered by this legislation should aim to maintain standards at least as high as those suggested here for laboratory research use, and should follow the spirit of these guidelines even where the ‘letter of the law’ cannot strictly be applied. Some modern psychological research, for example non-invasive studies of animals’ cognitive capacities might seem unlikely to lead to situations in which the animals will require legal protection. However, in the case of work not covered by the UK Animals (Scientific Procedures) Act 1986, psychologists should be aware that they have a more general duty of care towards any protected animal under the Animal Welfare Act (2006) and – particularly in the case of wild animals – licences may nonetheless be required.

\* In this document the term ‘animal’ is used as an abbreviation for ‘non-human animal’.

Our recommendations are general in scope, since the diversity of species and techniques used in psychology preclude giving specific details about appropriate animal care and treatment. **Thus members of the Society are reminded of their general obligation to avoid or at least minimise discomfort to living animals.** It should be noted that permission to perform procedures regulated under the 1986 Act will not be granted unless the researcher can justify the harms caused to the animals in relation to the likely benefits of the research (see Section 4 below). In addition, when permission to perform a regulated procedure is requested, the researcher is also required to demonstrate that consideration has been given to *replacing* animals with non-sentient alternatives whenever possible, *reducing* the number of animals used to the minimum consistent with the scientific objectives, and refining procedures to minimise suffering (The Three Rs: Russell & Burch, 1959), and to apply these 3Rs principles throughout the licensed programme of work. Psychologists who work with animals should, therefore, keep abreast of new developments in animal welfare, with new ways of reducing the numbers of animals required for the procedures, and with refining the procedures so as to enhance the welfare of the animals concerned and improve the quality of scientific data derived from them. Most of the major UK research funding bodies require that their grant holders do this. Sources of information and advice include the website of the UK's National Centre for

the Replacement, Refinement and Reduction of Animals in Research (NC3Rs; [www.nc3rs.org.uk](http://www.nc3rs.org.uk): Appendix 1B). The 3Rs developed in the context of laboratory research have been extended to cover wildlife research, usually conducted with free-living animals in their natural habitat or with wild-caught animals in captive settings such as zoos. Improved understanding of animal behavior may help to save endangered species, as well as to improve welfare standards for captive animals. **Members of the Society are strongly encouraged to actively promote animal welfare and protection through improved understanding of animal behaviour and emotionality.**

These guidelines will be used by the editors of the journals of the Society in assessing the acceptability of submitted manuscripts.

Submitted manuscripts may be rejected by an editor if the content violates either the letter or the spirit of the guidelines and the reasons communicated to the author. Members of the Society using animals should consider the guidelines before embarking on a regulated or non-regulated procedure, since any breach may be considered professional misconduct.

# 1. Legislation

Members of the Society working in the UK must familiarise themselves with the laws regarding animal welfare, and with threatened and endangered species that are relevant to their work, and conform with the spirit and letter of the relevant legislation. Wherever their work is done, Members of the Society, or those whose work is published by the Society, should conform to the ethical standards underlying UK legislation. A summary of history of the British laws designed to ensure the welfare of animals is given by Crofts (1989): detailed guidance on the operation of the Animals (Scientific Procedures) Act 1986 is provided by the Home Office (GOV.UK website: Appendix 1A). Lists of threatened species and laws aiming to protect them can be obtained from the International Union for the Conservation of Nature (website: Appendix 1B). The Wildlife and Countryside Act (1981, under amendment) provides important information regarding

responsibilities for 'use' of animals in the wild (GOV.UK website: Appendix 1A). Before publication of primary reports of research involving animals in the Society's journals, authors must confirm in their cover letter that they have adhered to the legal requirements of the country in which the study was conducted, as well as to these guidelines. For example in the UK, the Animal Welfare Act (website: Appendix 1A). This Act updates the Protection of Animals (1911) Act. It details (in Section 9) the duty to ensure animal welfare and to take all reasonable steps to ensure an animals needs are met to the extent required by good practice. If an individual does not have appropriate licence authorities in place under the Animals (Scientific Procedures) Act 1986, then the provisions of the Animal Welfare Act (2006) will apply to activities involving the use of animals (vertebrates other than humans and cephalopods).

# 2. Replacing the use of animals

Much psychological study requires an intact behaving organism. However, alternatives such as video records from previous work or computer simulations may also be useful. Both can be especially helpful in teaching contexts; see Stricklin et al. (1995) and Hull (1996). Two specific examples of these approaches are the video material of free-living rats that is a part of the 'Ratlife' project (website: Appendix 1B) and a simulation of rat behaviour in

operant learning procedures (website for 'Sniffy the virtual rat': Appendix 1B). General advice on computer simulations for teaching can be obtained from the Higher Education Psychology Network, formerly known as LTSN (website: Appendix 1B). InterNICHE (website: Appendix 1B) provides a large database of alternatives to animal use for educational purposes.

### 3. Choice of species and strain

Psychologists should choose a species that is scientifically and ethically suitable for the intended use. Choosing an appropriate subject species usually requires knowledge of that species' natural history and some judgement of its level of sentience. Knowledge of an individual animal's previous experience, such as whether or not it was bred in captivity, is also important. When the use involves regulated procedures, and when a variety of species can be used, the psychologist should employ the species which, in the opinion of the psychologist and other qualified colleagues, is likely to suffer least whilst still attaining the scientific objective, and must justify their choice in any *Project Licence* application. Moreover, the animal model chosen should be one that is effective and efficient in producing the anticipated benefit. The use of non-human primates will always require particularly careful consideration because of their high level of sentience; Bateson et al. (2011) and Prescott (2010) provide reviews these issues.

Different strains of commonly-used laboratory rodents have very different physiological and behavioural characteristics that may make them more or less suitable for psychological research. In addition, the amount of variation between individuals may be greater in outbred than in inbred strains. As a consequence, the use of inbred strains may reduce the numbers of animals that are required, although it may reduce the generality of the results that are obtained. Psychologists now use genetically manipulated mice in a wide variety of studies. Although such studies are typically done on a genetically manipulated strain that has already been behaviourally characterised and where the mutation is thought to have no adverse welfare consequences, problems may emerge in novel test situations. Wells (2006) provides a summary of a report from the NC3Rs that examines the welfare issues associated with studies using transgenic mice.

### 4. Number of animals

Researchers working under the 1986 Act are legally required to use the smallest number of animals sufficient to accomplish the research goals, and this principle should be generally applied. The aim of minimising the number of animals used in an experiment can be achieved by appropriate pilot studies, reliable measures of behaviour, good experimental design and the appropriate use of statistical tests (Still, 1982; McConway, 1992; Festing et al., 2002). In 1996, the American Psychological Association's Task Force on Statistical Inference was published, giving guidance on the importance of taking statistical power into account when designing experiments (APA website: Appendix 1B). Howell (2006) also has a useful discussion of power calculations. The NC3Rs provides a free online tool, the 'Experimental Design Assistant' (EDA), to help researchers design experiments more likely to yield reliable and robust results (Appendix 1B: NC3Rs website). The EDA system

incorporates support for randomisation, blinding, sample size calculation and statistical analysis.

Reducing the number of animals should not have the consequence that the animals which are used could suffer over extended test durations. For example, the UK Home Office also imposes the condition that the duration and intensity of suffering must be the minimum possible for animals undergoing regulated procedures.

Researchers are also strongly encouraged to publish according to the principles of open science. Data and methods sharing are of particular ethical importance when using animals in research as they can contribute to all of the 3Rs. Most major funders, research intensive universities and over 1,000 journals have adopted the NC3Rs ARRIVE guidelines for the reporting of animal-based studies (<https://www.nc3rs.org.uk/arrive-guidelines>).

## 5. Regulated laboratory procedures

The following section details regulated procedures that are specifically covered by the Animal (Scientific Procedures) Act 1986, largely relating to the use of animals for human benefit in medical research, for example drug development, but also the underpinning bioscience as studied in behavioural neuroscience laboratories. Moreover, the application of ASPA is not limited to these research fields: any scientific procedure involving a protected animal that may have the effect of causing pain, suffering, distress or lasting harm is regulated under the Animals (Scientific Procedures) Act 1986. This includes causing death, disease, injury, physiological or psychological stress, significant discomfort, or any disturbance to normal health, whether immediately or in the long term. The investigator should consider experimental designs that avoid the use of regulated procedures by, for example, enriching rather than impoverishing the environment as the experimental treatment, or by employing situations in which naturally occurring instances of deleterious conditions are observed.

Permission to perform regulated procedures requires a *Project Licence*, which specifies the species, numbers of animals and combinations of procedures that may be used. Such a licence is only granted after weighing the benefits of the proposed programme of against the harms to the animals that will be used in the work. The *Project Licence* holder is responsible for ensuring that the project is conducted legally under the terms of the Animals (Scientific Procedures) Act 1986, and in accordance with the conditions of the licence. In general, regulated procedures must be carried out at a Registered Establishment although there are limited exceptions for fieldwork projects.

The actual performance of a regulated procedure also requires a *Personal Licence*, which is given after successful completion of appropriate training courses to those who are competent to perform the procedures.

*Personal Licence* holders are required to seek to minimise any pain, suffering or distress that might arise, given the requirements of the experimental design (AVMA, 1987; Bateson, 1991; NRC, 1992). Whatever procedure is in use, any adverse effects on animals must be recognised and assessed, and immediate action taken whenever necessary (Mellor & Morton, 1997; Morton, 1997; Morton & Townsend, 1995). According to the Animal (Scientific Procedures) Act, 1986 the *Personal Licence* holder has the primary responsibility in this regard; a Named Animal Care and Welfare Officer (NACWO) with responsibility for day-to-day care of the animal and a Named Veterinary Surgeon (NVS) will also be available to give advice on animal health and welfare.

When applying for legal permission to perform regulated procedures, investigators are also required to discuss with colleagues and others, through a local ethical review process (Animal Welfare Ethical Review Body, AWERB), the justification for the use of animals and the balance between harms and benefits. The AWERB must include not only academics but also a veterinary surgeon and a lay person, and must approve project and personal licence applications before they are passed to the Home Office. Moreover the AWERB Network was developed to share good practice between AWERBs and the Animals in Science Committee, an independent public body sponsored by the Home Office (GOV.UK link to leaflet: Appendix 1A).

There are several models for evaluating animal research which can be of use when making ethical decisions (Orlans, 1987; Shapiro & Field, 1988; Porter, 1992; Smith & Boyd, 1991). Furthermore, when reporting research in scientific journals or otherwise, researchers must always be prepared to identify any harms to the animals involved and justify them in terms of the scientific benefit of the work.

The following more specific points may be helpful:

## HOUSING CONDITIONS

Caging conditions should take into account the social behaviour of the species. Caging in isolation may be stressful to social animals; overcrowding may also cause distress, and possible harm through aggression. Because the degree of stress experienced by an animal can vary with species, age, sex, reproductive condition, rearing history, depression of the immune system, temperament and social status (Abbott et al., 2003; Palanza et al., 2001), the natural behaviour of the individual animals concerned and their previous social experience must be considered in order to minimise such stress. Guidance documents associated with the Animals (Scientific Procedures) Act 1986 – such as the code of practice for the housing and care of animals bred, supplied or used for scientific purposes (<https://www.gov.uk/government/>

publications/code-of-practice-for-the-housing-and-care-of-animals-bred-supplied-or-used-for-scientific-purposes) – specify minimum standards for the housing of laboratory animals (Home Office Website: Appendix 1A).

Depending on the data collection requirements, home cage testing should be considered to reduce potential stress on the animals. Automated cages in which the animals both live and are tested are increasingly sophisticated (e.g. ‘IntelliCages’ for behavioural and cognitive phenotyping in the home cage, and the Home Cage Analyser (HCA) for continuous 24/7 recording and analysis of individual animal behavior when socially housed in a standard laboratory cage).

## REWARD, DEPRIVATION AND AVERSIVE STIMULATION

It is not always necessary to provide all species of animals with *ad libitum* food intake, and, in some cases, this may even be considered harmful; deprivation, on the other hand, can cause distress to animals (Claasen, 1994). Some levels of deprivation are regarded as regulated procedures under the Animal (Scientific Procedures) Act 1986, but others are not.

Thus, when arranging schedules of deprivation the experimenter should consider the animal’s normal eating and drinking habits

and its metabolic requirements; a short period of deprivation for one species may be unacceptably long for another. When using deprivation or aversive stimulation, the investigator should ascertain that there is no alternative way of motivating the animal that is consistent with the aims of the experiment, and that the levels of deprivation used are no greater than necessary to achieve the goals of the experiment (Prescott et al. 2010). Alternatives to deprivation include the use of highly preferred foods and other rewards which may motivate even a sated animal.

## AGGRESSION AND PREDATION

The fact that the agent causing harm may be another non-human animal does not free the experimenter from the normal and legal obligations to experimental animals. Huntingford (1984) and Elwood (1991) discuss the ethical issues involved and suggest that, wherever possible, field studies of natural encounters should be used in preference to

staged encounters. Where staged encounters are necessary, the use of models as targets should be considered. If live animals are used as potential targets for aggressive behaviour then continuous observation, with intervention to stop aggression at predefined levels, and provision of protective barriers and escape, are also strongly recommended.

## FIELDWORK

Investigators studying free-living animals should take precautions to minimise interference with individuals as well as the populations and eco-systems of which they are a part. In the UK wild species are protected by the Wildlife and Countryside Act 1981 (currently under amendment). Specific licences issued by Natural England may be required if the work affects wildlife and/or its habitat and information relating to this issue has been provided by the UK government (GOV. UK website: Appendix 1A).

A class licence is required to cover work that needs a specific skill or experience, to avoid risk to the conservation or welfare of any protected species. Before studying free-living animals, it is essential to check compliance with the relevant legislation as it applies to animals and situations in the country in which the work will be conducted.

It is important to minimize the impact of the study on the animals concerned. Investigators must ensure full compliance with the relevant legislation before any animal may be removed from the wild. Human disturbance to habitats and the normal activities of animals can result in them abandoning territories, home ranges or young (Trombulak & Frissell, 2000, Stevens & Boness, 2003).

Capture, marking, radio-tagging, collection of physiological data (such as blood or tissue samples) or field experiments which may result in habituation to humans or other predators may not only have immediate effects on the animal, but may also have longer term consequences such as a reduced probability of survival and reproduction.

The subsequent release of the animals may also be problematic. For guidance on appropriate procedures, see Kirkwood et al. (1994), and the British Wildlife Rehabilitation Council (1989). Investigators should consider the effects of such interference, and use less disruptive techniques such as recognition of

individuals by use of natural markings rather than artificial marking where possible. Cuthill (1991) discusses the ethical issues associated with field experiments, and recommends pilot investigations to assess potential environmental disruption and follow-up studies to detect and minimise persistent effects. Even the use of drones can also have unintended consequences if they move too close. Researchers should reflect and if possible model the potential fitness impact their proposed field research may have. The distance of both the researchers and their equipment to the animals should be considered and justified and cameras should have good zoom capacity. Further guidelines for fieldwork involving animals can found on the NC3Rs website (Appendix 1B).

The harm-benefit analysis of a field procedure should take into account the adverse consequences of disruption not only for the animals used as subjects but also for other animals and plants in the ecosystem (Bekoff, 1995; Bekoff & Jamieson, 1996). When an experimental protocol requires that animals be removed from the population either temporarily or on a long-term basis, investigators should ensure that suffering or discomfort are minimised not only for the removed animals but also for others dependent on them (e.g. offspring). Removed individuals and their dependants must be housed and cared for appropriately. Sources of further information on field techniques are the books edited by Stonehouse (1978), Amlaner and Macdonald (1980), and Barnard (2007) providing an especially valuable review of the issues that arise in fieldwork.

Researchers using regulated laboratory procedures are trained to detect behavioural indicators of pain, aggression, fear and/or stress characteristic of the animal species that they use and to relate these to the severity banding of the project. This principle can usefully be extended to other types of project including fieldwork and observational studies

involving animals – if researchers describe in their ethics proposals these relevant behaviours for the species under study, based on both the published evidence and any in house expertise. As per the UK Home Office Project Licence,

such ethics applications should furthermore explain the plan of action when such symptoms of potential distress are detected.

## ANAESTHESIA, ANALGESIA AND EUTHANASIA

After conducting surgical procedures, close attention should be given to proper post-operative care in order to minimise preparatory stress and residual effects. Regular and frequent post-operative monitoring of the animal's condition is essential, and it is a requirement of the *Personal Licence* that if at any time an animal is found to be suffering severe pain or distress that cannot be alleviated it must be killed humanely using an approved technique (see Section 7 below). Unless specifically contra-indicated by the experimental design, procedures

that are likely to cause pain or discomfort should be performed only on animals that have been adequately anaesthetised, and analgesics should be used before and after such procedures to minimise pain and distress whenever possible (Flecknell, 2006; see also NC3Rs website: Appendix 1B). US and EU legislation make the presumption that where there is little or no evidence that a procedure may be painful to an animal, human experience should be taken into account and used as a guideline until proved otherwise.

## 6. Procurement of animals

Common laboratory species, listed under Schedule 2 of the Animals (Scientific Procedures) Act 1986, must come from Home Office Designated Breeding and Supply Establishments. Other species should only come from high quality suppliers. More detailed guidance relevant to wild-caught animals is provided by the Association for the Study of Animal Behaviour (ASAB website: Appendix 1C; also published in *Animal Behaviour: ASAB/ABS*, 2006).

## 7. Animal care

The researcher's responsibilities extend also to the conditions under which the animals are kept, both when on study and when not being studied. If a regulated procedure is being used then these are governed by the Animals (Scientific Procedures) Act 1986; this principle should be extended to animals used for other purposes, and the housing conditions and husbandry practices must at least reach the standards required by the guidelines and codes issued under that legislation. If the work does not involve a regulated procedure then the conditions under which the animals are kept will fall under the provision of the Animal Welfare Act 2006. Moreover, the Code of Practice (Home Office website: Appendix 1A) defines the housing conditions appropriate for protected species, whether they are undergoing study or not.

The 1986 European Convention (Article 5 – see EU website: Appendix 1A) provides that 'Any animal used or intended for use in a procedure shall be provided with accommodation, and environment, at least a minimum of freedom of movement, food, water and care, appropriate to its health and well-being. Any restriction on the extent to which an animal can satisfy its physiological and ecological needs shall be limited as far as practicable.' Normal maintenance of captive animals should thus incorporate, as much as possible, aspects of the natural living conditions deemed

important to welfare and survival (Poole, 1998). Consideration should be given to providing features such as natural materials, refuges, perches and dust and water baths. Frequency of cage cleaning should represent a compromise between the level of cleanliness necessary to prevent diseases and the amount of stress imposed by the cleaning process.

Companions should be provided for social animals where possible, providing that this does not lead to suffering or injury. The housing regime should provide adequate exercise and cognitive stimulation.

The nature of human-animal interactions during routine care and experimentation should be considered by investigators. Depending upon species, rearing history and the nature of the interaction, animals may perceive humans as conspecifics, predators or symbionts (Estep & Hetts, 1992). Special training of animal care personnel can help in implementing procedures that foster habituation of animals to caretakers and researchers and minimise stress. Stress can also be reduced by training animals to co-operate with handlers and experimenters during routine husbandry and habituation to experimental procedures (for resources see NC3Rs webpage: Appendix 1B). Human-animal interactions are also a growth area in research, from which both humans and animals should derive benefit.

## 8. Disposing of animals

If an animal has been used in a procedure regulated by the Animals (Scientific Procedures) Act, 1986 its reuse is tightly controlled and requires specific Home Office approval. In other circumstances, when research projects or teaching exercises using captive animals are completed, it may sometimes be appropriate to distribute animals to colleagues for further study, breeding or as companion animals. However, if animals are distributed in any of these ways, appropriate

measures must be taken to ensure that they continue to receive a high standard of care. If animals must be killed during or subsequent to a study, this must be done as humanely and painlessly as possible; acceptable methods for particular species are defined in Schedule 1 of the Animals (Scientific Procedures) Act 1986 (amended in 2012: Appendix 1A). Death of the animals must be confirmed before their bodies are disposed of. A veterinary surgeon should be consulted for advice on up to date methods

of euthanasia that are appropriate for species not listed in Schedule 1. For information on

euthanasia methods see AVMA (2000), and Close et al. (1996, 1997).

## 9. Animals in psychology teaching

Historically, animals have been used in psychology teaching at a variety of levels, primarily at university level. This usage has been largely superseded by the use of online teaching materials and simulations such as Ratlife.org (website: Appendix 1B) and Sniffy the Rat (website: Appendix 1B), see also InterNICHE (website: Appendix 1B). Replacements for the use of animals are likely to develop further with new virtual reality technologies. These days even university level practicals are unlikely to involve the use of animals, though final year research project options, involving the use of animals as part of an ongoing programme of research, continue to be provided.

At every level where animals are used, the ethical issues should be discussed with the relevant teaching group. Students should be encouraged to form their own ethical assessments and must not be required to carry out any experimental manipulation that they, individually, judge to be inappropriate. It is the responsibility of teachers to ensure that students are trained and competent to carry out whatever is required of them.

At secondary school and undergraduate level, it may be appropriate to include some work involving live animals, although the use of animals for demonstrations of known facts using regulated procedures is prohibited. There may be some occasions on which students may use animals individually for learning purposes in ways that are not covered by this legislation, but these by definition will not involve procedures believed to cause any harmful consequence. Observation of animals in their natural habitat may be encouraged provided that neither the animals nor the habitat are manipulated. The use of film and video brings valuable opportunities for the observation of formal manipulative studies.

Students who have career aspirations in professional psychology may have a special interest in animal psychology. They may wish to carry out final year experimental projects involving animals. If such projects may involve pain or suffering, they are only legally permissible if they form part of an ongoing programme of research, and where the study would otherwise have been conducted by the supervisor or his/her research team as work approved under an existing *Project Licence*. It is a legal requirement that any regulated procedures required by such projects will normally be performed by a *Personal Licence* holder although some simple tasks, such as the removal of food for temporary deprivation, may be delegated provided they are closely supervised by a *Personal Licence* holder.

However, delegation must be explicitly permitted on the *Personal Licence* of the person who asks others to perform such tasks.

At the postgraduate or advanced undergraduate level, any student wishing to perform regulated procedures with animals must hold a *Personal Licence*. Home Office-accredited training courses must be passed as a pre-requisite to obtaining a licence. Additional courses, such as the BAP Pre-clinical Training Course (see Appendix 1B: BAP website), are also recommended.

## 10. The use of animals for therapeutic purposes

A variety of animal species may be used by psychologists as aides or adjuncts to therapy. An example of this is the use of pet dogs as ‘co-therapists’ in the clinical setting, either through direct contact and interaction with the client or patient, or simply by their presence in the consulting room during a therapy session. Other examples include horse riding for disabled children, companion animal visiting schemes in hospitals or hospices, and pet keeping schemes within prison rehabilitation programmes. Animals, such as snakes and spiders, are still sometimes used in behaviour therapy for the treatment of specific phobias. Simulations may be of some benefit as part of the exposure programme but generalization decrement is to be expected and such treatments may be relatively ineffective if they do not culminate in exposure to a live animal.

In all these cases, considerations concerning the general care and welfare of therapeutic animals are similar to those outlined for experimental animals and animals used for therapeutic purposes will also be projected under the Animal Welfare Act (2006).

In addition, however, a number of specific considerations can be noted. The individual temperament and training of such animals should be appropriate for the planned task (e.g. a hospital visiting dog should be calm, placid and sociable with people) and should, therefore, be assessed carefully prior to use.

Care should also be taken that contact between the therapeutic animal and client/patient is monitored at all times. Therapeutic interactions, especially with children, can be very demanding and tiring for an animal. Animals should, therefore, have the opportunity to retreat from stressful situations or interactions, should they arise.

Although such use of animals will not, in general, require a specific license, it is covered by the broad provisions of the Animal Welfare Act (2006). Psychologists involved in such treatment programmes should ensure that they are familiar with the legislation and ensure that high animal welfare standards are applied. The contribution of psychologists to consideration of the animals’ emotional state and general wellbeing is of particular importance because the use of animals for this purpose is almost totally unregulated. Moreover such activities may involve practitioners experienced in human behaviour but with little or no animal behaviour knowledge. People working with animals in therapeutic settings should be trained to recognize subtle signs stress which may be species-specific (e.g. licking and yawning in dogs).

It should also be noted that there can be safety issues, particularly with larger animals which may cause injury to themselves as well as to humans, as well as when using animals which may bite if distressed. Psychologists should also promote the use of virtual reality replacement of animals as far as possible.

## 11. Clinical assessment and treatment of animal behaviour

A small number of psychologists work with animals whose behaviour is disordered or problematic in some way. The methods that may be employed are beyond the scope of

these guidelines. The Society has collaborated with the Association for the Study of Animal Behaviour (ASAB) in devising an accreditation scheme for those working in this area. The

scheme is administered by ASAB and details can be found on their website (see Appendix 1C). The website also includes contact details for accredited clinical animal behaviour practitioners.

Members of the Society whose professional practice in other areas brings to light examples of disordered animal behaviour that may require specialist treatment are strongly encouraged to refer the case to a practitioner accredited in this way. An equivalent scheme operates in the US and also accredits individuals

on a worldwide basis (Animal Behavior Associates Inc. website: Appendix 1C).

Animals undergoing behavioural treatments will be protected under the broad provisions Animal Welfare Act (2006). It should also be noted that only vets can diagnose problems ('diagnose' is a protected term under the Veterinary Surgeons Act, 1966). This means that although psychologists may work with animals deemed, for example, to have separation anxiety, this is classed as a 'disorder', for which they are not in the position to confirm the diagnosis.

## Obtaining further information

There are a number of organisations that provide publications and detailed information about the care and use of animals. The Universities Federation for Animal Welfare (UFAW) is particularly relevant to British psychologists, and has produced a *Handbook on the Care and Management of Laboratory Animals* (Poole 1987). The NC3Rs provides a range of resources on how to apply the 3Rs, as well as research funding for developing new 3Rs techniques.

Both organisations have excellent websites (Appendix 1B). The website of the Office of Laboratory Animal Welfare (Appendix 1B: OLAW website) provides a comprehensive series of links to relevant US bodies.

Psychologists working with animals should also inform themselves about the debate on the desirability of animal research. The opposing arguments are presented by the Royal Society for the Protection of Animals (RSPCA), the Laboratory Animal Science Association (LASA), Cruelty Free International (previously known as the British Union for the Abolition of Vivisection, BUAV), Understanding Animal Research (UAR) and the Fund for the Replacement of Animals in Medical Experiments (FRAME). These organisations all have useful websites (see Appendix 1B). Relevant books include DeGrazia (1996), Dawkins (1993) and Ryder (2000).

# References

- Abbott D.H., Keverne E.B., Bercovitch F.B., Shively C.A., Mendoza S.P., Saltzman W., Snowdon C.T., Ziegler, T. E., Banjevic, M., Garland, T. & Sapolsky R.M. (2003). Are subordinates always stressed? A comparative analysis of rank differences in cortisol levels in Primates. *Hormones and Behavior*, *43*, 67–82.
- Amlaner, C.L.J. & Macdonald, D.G. (1980). *A handbook on biotelemetry and radio tracking*. Oxford: Pergamon.
- ASAB/ABS (2006). Guidelines for the treatment of animals in behavioural research and teaching. *Animal Behaviour*, *71*, 245–253.
- American Veterinary Medical Association (AVMA) (1987). Colloquium on recognition and alleviation of animal pain and distress. *Journal of the American Veterinary Medical Association*, *191*, 1184–1296.
- American Veterinary Medical Association (AVMA) (2000). Report of the AVMA panel on Euthanasia. *Journal of the American Veterinary Medical Association*, *218*, 669–696.
- Barnard, C. (2007). Ethical regulation and animal science: Why animal behaviour is special. *Animal Behaviour*, *74*, 5–13.
- Barnett, S.A. (1976). *The rat: A study in behaviour*. Chicago: University of Chicago Press.
- Bateson, P.P.G. (1991). Assessment of pain in animals. *Animal Behaviour*, *42*, 327–339.
- Bateson, P.P.G. et al. (2011). *Review of research using non-human primates*. Wellcome Trust. Accessed 24 January 2012, from: [www.wellcome.ac.uk/stellent/groups/corporatesite/@policy\\_communications/documents/web\\_document/wtvm052279.pdf](http://www.wellcome.ac.uk/stellent/groups/corporatesite/@policy_communications/documents/web_document/wtvm052279.pdf)
- Bekoff, M. (1995). Naturalising and individualising animal well-being and animal minds: An ethologist's naiveté exposed? In A. Rowan (Ed.) *Wildlife conservation, zoos and animal protection: A strategic analysis* (pp.63–129). Gratton, MA: Tufts Centre for Animals and Public Policy.
- Bekoff, M. & Jamieson, D. (1996). Ethics and the study of carnivores: Doing science while respecting animals. In J.L. Gittleman (Ed.) *Carnivore behaviour, ecology, and evolution, Volume 2* (pp.15–45). Ithaca, NY: Cornell University Press.
- British Wildlife Rehabilitation Council (1989). *Ethical and legal aspects of treatment and rehabilitation of wild animal casualties*. Horsham: British Wildlife Rehabilitation Council.
- Canadian Council on Animal Care (1992). *Guide to the care and use of experimental animals, Vols. 1 and 2*. Ottawa, Ontario: Canadian Council on Animal Care.
- Claasen, V. (1994). Neglected factors in pharmacology and neuroscience research. Biopharmaceutics, animal characteristics, maintenance testing conditions. In J.P. Huston (Ed.) *Techniques in the behavioural and neural sciences* (p.486). Amsterdam: Elsevier.
- Close, B.S., Banister, K., Baumans, V., Bernoth, E.M., Bromage, N., Bunyan, J., Erhardt, W., Flecknell, P., Gregory, N., Hackbarth, H., Morton, D.B. & Warwick, C. (1996, 1997). Recommendations for euthanasia of experimental animals. Commission of the European Communities DGX1 Working Party Report. *Laboratory Animals*, *30*, 293–316, and *Laboratory Animals*, *31*, 1–32.
- Crofts, W. (1989). *A summary of the statute law relating to the Welfare of Animals in England and Wales*. Potters Bar: Universities Federation for Animal Welfare (UFAW).
- Cuthill, I. (1991). Field experiments in animal behaviour: Methods and ethics. *Animal Behaviour*, *42*, 1007–1014.
- Darmaillacq, A.S., Dickel, L. & Mather, J. (Eds.). (2014). *Cephalopod cognition*. Cambridge University Press.
- Dawkins, M.S. (1993). *Through our eyes only. The search for animal consciousness*. New York: W.H. Freeman.
- DeGrazia, D. (1996). *Taking animals seriously: Mental life and moral status*. Cambridge: Cambridge University Press.
- ECVAM (1998). Reducing the use of laboratory animals in biomedical research: Problems and possible solutions. ECVAM Workshop Report 29, *ATLA*, *26*, 283–301.
- Elwood, R.W. (1991). Ethical implications of studies on infanticide and maternal aggression in rodents. *Animal Behaviour*, *42*, 841–849.
- Estep, D.Q. & Hetts, S. (1992). Interactions, relationships, and bonds: The conceptual basis for scientist-animal relations. In H. Davis & D. Balfour (Eds.) *The inevitable bond: Examining scientist-animal interactions* (pp.6–26). Cambridge: Cambridge University Press.
- Festing, M.F.W., Overend, P., Gaines Das, R., Cortina Borja, M. & Berdoy, M. (2002). *The design of animal experiments. Reducing the use of animals in research through better experimental design*. London: Royal Society of Medicine Press Limited.
- Flecknell, P.A. (2006). *Laboratory animal anaesthesia* (3rd edn). Academic Press.
- Green, C.J. (1979). *Animal anaesthesia*. London: Laboratory Animals Ltd.
- Guide Development Committee (1988). *Guide for the care and use of agricultural animals in agricultural research and teaching*. Washington, DC: Consortium for Developing a Guide for the Care and Use of Agricultural Animals in Agricultural Research and Teaching.
- Howell, D.C. (2006). *Fundamental statistics for the behavioural sciences* (6th edn). London: Duxbury Press.

- Her Majesty's Stationery Office (HMSO). For all HMSO publications related to the Animals (Scientific Procedures) Act 1986 see the Home Office website (Appendix 1A).
- Hull, D.B. (1996). Animal use in undergraduate psychology programmes. *Teaching of Psychology*, 23, 171–174.
- Huntingford, F.A. (1984). Some ethical issues raised by studies of predation and aggression. *Animal Behaviour*, 32, 210–215.
- Institute of Laboratory Animal Resources (ILAR) (National Research Council) (2000). Humane endpoints for animals used in biomedical research and testing. *ILAR Journal*, 41(2). (See Appendix 1B: ILAR website).
- Institute of Laboratory Animal Resources (ILAR) (National Research Council) (2002). Implications of human-animal interactions and bonds in the laboratory. *ILAR Journal*, 43(1). (See Appendix 1B: ILAR website).
- Institute of Laboratory Animal Resources (ILAR) (National Research Council) (2005). Enrichment strategies for laboratory animals. *ILAR Journal*, 46(2). (See Appendix 1B: ILAR website).
- Joint Working Group on Refinement (1993a). Removal of blood from laboratory animals and birds. First report of the BVA-AWF/FRAME/RSPCA/UFAW Joint Working Group on Refinement. *Laboratory Animals*, 27, 1–22.
- Joint Working Group on Refinement (1993b). Refinements in rabbit husbandry. Second report of the BVA-AWF/FRAME/RSPCA/ UFAW Joint Working Group. *Laboratory Animals*, 27, 301–329.
- Joint Working Group on Refinement (1998). Refining rodent husbandry: The mouse. Third report of the BVA-AWF/FRAME/ RSPCA/UFAW Joint Working Group. *Laboratory Animals*, 32, 260–269.
- Joint Working Group on Refinement (2001). Refinements in the administration of substances. Fourth report of the BVA-AWF/ FRAME/RSPCA/UFAW Joint Working Group on Refinement. *Laboratory Animals*, 35, 1–41. (Also available on the NC3Rs website – see Appendix 1B.)
- Joint Working Group on Refinement (2001). Refinements in the husbandry of birds. Fifth Report of the BVA-AWF/FRAME/ RSPCA/UFAW Joint Working Group on Refinement. *Laboratory Animals*, 35, Supplement 1.
- Kirkwood, J.K., Sainsbury, A.W. & Bennett, P.M. (1994). The welfare of free living animals: Methods of assessment. *Animal Welfare*, 3, 257–273.
- Mellor, D.J. & Morton, D.B. (1997). Humane endpoints in research and testing. Synopsis of the workshop. In L.F.M. Van Zutphen & M. Balls (Eds.) *Animal alternatives, welfare and ethics* (pp.297–299). Netherlands: Elsevier Science.
- Moran, G. (1975). Severe food deprivation: Some thoughts regarding its exclusive use. *Psychological Bulletin*, 82, 543–557.
- Morton, D.B. (1997). A scheme for the recognition and assessment of adverse effects. In L.F.M. Van Zutphen & M. Balls (Eds.) *Animal alternatives, welfare and ethics* (pp.297–299). Netherlands: Elsevier Science.
- Morton, D.B. & Townsend, P. (1995). Dealing with adverse effects and suffering during animal research. In A.A. Tuffery (Ed.) *Laboratory animals: An introduction for experimenters* (revised version, pp.215–231). UK: John Wiley.
- Orlans, F.B. (1987). Research protocol review for animal welfare. *Investigatory Radiology*, 22, 253–258.
- Palanza, P., Gioiosa, L. & Parmigiani, S., (2001). Social stress in mice. Gender differences and effects of estrous cycle and social dominance. *Physiology & Behaviour*, 71, 411–420.
- Poole, T.B. (1999). Universities Federation for Animal Welfare (UFAW). *Handbook on the care and management of laboratory animals* (7th edn, two volumes). Oxford: Blackwell Science Ltd.
- Poole, T.B. (1998). Meeting a mammal's psychological needs: Basic principles in second nature. In D.J. Shepherdson, J.D. Mellen & M. Hutchins (Eds.) *Environmental enrichment for captive animals* (pp.83–97). Washington, DC: Smithsonian Institution Press.
- Porter, D.G. (1992). Ethical scores for animal experiments. *Nature*, 356, 101–102.
- Prescott, M.J. (2010). Ethics of primate use. *Advances in Science and Research*, 5, 11–22.
- Prescott, M.J., Brown, V.J., Flecknell, P.A., Gaffan, D., Garrod, K., Lemon, R.N., Parker, A.J., Ryder, K., Schultz, W., Scott, L., Watson, J., & Whitfield, L. (2010). Refinement of the use of food and fluid control as motivational tools for macaques used in behavioural neuroscience research: Report of a working group of the NC3Rs. *Journal of Neuroscience Methods*, 193, 167–188.
- Russell, W.M.S. & Burch, R.L. (1959). The principles of humane experimental technique. Universities Federation for Animal Welfare (UFAW) *Special Edition*, 1992.
- Ryder, R.D. (2000). *Animal revolution: Changing attitudes towards speciesism*. Oxford: Berg.
- Sanchez, G., Setiamarga, D.H.E., Tuanapaya, S., Tongtherm, K., Winkelmann, I.E., Schmidbaur, H., Umino, T., Albertin, C., Allcock, L., Perales-Raya, C., Gleadall, I., Strugnell, J.M., Simakov, O. & Nabhitabhata, J. (2018). Genus-level phylogeny of cephalopods using molecular markers: current status and problematic areas. *PeerJ*, 6, e4331.
- Shapiro, K.J. & Field, P.B. (1988). A new invasiveness scale: Its role in reducing animal distress. *Humane Innovations in Alternative Animal Experimentation*, 2, 43–46.
- Sherwin, C.M. (2001). Can invertebrates suffer? Or, how robust is argument-by-analogy? *Animal Welfare*, 10, 103–118.
- Smith, J.A. & Boyd, K. (1991). *Lives in the balance*. Oxford: Oxford University Press.

- Stevens, M.A. & Boness, D.J., (2003). Influences of habitat features and human disturbances on use of breeding sites by a declining population of southern fur seals (*Arctocephalus australis*). *The Zoological Society of London*, 260, 145–152.
- Still, A.W. (1982). On the number of subjects used in animal behaviour experiments. *Animal Behaviour*, 30, 873–880.
- Stonehouse, B. (1978). *Animal marking: Recognition marking of animals in research*. London: Macmillan.
- Stricklin, W.R., Zhou, J.Z. & Gonyou, H.W. (1995). Selfish animals and robot ethology: Using artificial animals to investigate social and spatial behaviour. *Applied Animal Behaviour Science*, 44, 187–203.
- Trombulak, S.C. & Frissell, C.A. (2000). Review of ecological effects of roads on terrestrial and aquatic communities. *Conservation Biology*, 14, 18–30.
- Wells, D.J. et al. (2006). Assessing the welfare of genetically altered mice. *Laboratory Animals* 40, 111–114.

# Appendix 1: Websites for additional reference

## GOVERNMENTAL SOURCES OF INFORMATION CONCERNING LEGISLATION

- In the UK, a number of GOV.UK websites provide information concerning the legislation covering activities impacting on animals. The **Home Office** is responsible for legislation in the field of laboratory animal welfare. The Home Office website contains the full text of the legislation, associated guidance and much other material of relevance to this area. <https://www.gov.uk/guidance/research-and-testing-using-animals> (December, 2018) is the link to this material. A Google search with the terms ‘animals home office’ should bring up any replacement link if this is updated.
- The Animals (Scientific Procedures) Act 1986 was amended in 2012. For further details see: <https://www.gov.uk/government/publications/animals-scientific-procedures-act-1986-amendment-regulations>; Guidance on the Operation of the ASPA is here: <https://www.gov.uk/guidance/guidance-on-the-operation-of-the-animals-scientific-procedures-act-1986>
- The associated Code of Practice specifies minimum standards for laboratory animal housing and husbandry. For further details see: <https://www.gov.uk/government/publications/code-of-practice-for-the-housing-and-care-of-animals-bred-supplied-or-used-for-scientific-purposes>
- The research institution’s **Animal Welfare Ethical Review Body** liaises with an independent public body sponsored by the Home Office, the **Animals in Science Committee**, see [www.gov.uk/government/publications/animal-welfare-ethical-review-body-awerb-network-leaflet](http://www.gov.uk/government/publications/animal-welfare-ethical-review-body-awerb-network-leaflet).
- The **Animal Welfare Act (2006)** applies to activities not covered by licence authorities in place under the Animals (Scientific Procedures) Act 1986, see [www.legislation.gov.uk/ukpga/2006/45/contents](http://www.legislation.gov.uk/ukpga/2006/45/contents).
- For licences which may be required to carry out work affecting wildlife and its habitat, see [www.gov.uk/guidance/wildlife-licences](http://www.gov.uk/guidance/wildlife-licences). For information on protected sites and species, and wildlife and habitat conservation, see [www.gov.uk/government/organisations/natural-england](http://www.gov.uk/government/organisations/natural-england). The Wildlife and Countryside Act (1981, under amendment) provides further important information regarding responsibilities for use of animals in the wild, see [www.legislation.gov.uk/ukpga/1981/69](http://www.legislation.gov.uk/ukpga/1981/69).
- Within the EU, [http://ec.europa.eu/environment/chemicals/lab\\_animals/home\\_en.htm](http://ec.europa.eu/environment/chemicals/lab_animals/home_en.htm) includes links to all EU directives on laboratory animals. Council Directive Directive 2010/63/EU (22 September, 2010), has updated the original Directive and took full effect 1 January 2013.
- In the US, the **Office of Laboratory Animal Welfare (OLAW)**, a part of the National Institutes of Health, provides a comprehensive guide to American regulation in this area and can be found at: <http://grants.nih.gov/grants/olaw/olaw.htm>

## NON-GOVERNMENTAL SOURCES OF INFORMATION ON WELFARE-RELATED ISSUES

- The **American Psychological Association** is a long-standing advocate for the ethical and humane care and use of nonhuman animals in research. For further details see: [www.apa.org/research/responsible/animal/](http://www.apa.org/research/responsible/animal/)
- The **Animal Welfare Institute** is a US charity with a particular interest in laboratory animals and is at: [www.awionline.org/](http://www.awionline.org/)
- The **Boyd Group** provides a forum in which individuals with very different views in relation to the use of animals can meet and attempt to come to a consensus on specific issues. Recent examples include the use of non-human primates in scientific research and the use animals in cosmetics testing. Their reports are available at: [www.boyd-group.demon.co.uk](http://www.boyd-group.demon.co.uk)
- The **British Association for Psychopharmacology** supports the humane use of animals in biomedical research in the UK. For further information see: [www.bap.org.uk/position\\_statement.php](http://www.bap.org.uk/position_statement.php)
- The **British Union for the Abolition of Vivisection** now known as **Cruelty Free International** is one of the oldest established organisation is the UK campaigning for a complete ban on experimental work on non-human animals. Its website ([www.crueltyfreeinternational.org/who-we-are/about-us](http://www.crueltyfreeinternational.org/who-we-are/about-us)) provides a clear insight into the 'animal rights' perspective on the use of animals in research and chemical testing programmes.
- The **Higher Education Academy** supports a large network of learning and teaching practitioners involved in psychology throughout the UK. A particularly useful aspect of the website is the comprehensive listing of resources, including online and digital that may be useful in the teaching of psychology. This material can be found at: [www.heacademy.ac.uk/discipline-area/psychology](http://www.heacademy.ac.uk/discipline-area/psychology)
- **FRAME** is an independent charity which is focused on researching alternatives to animal testing, with the ultimate aim of the replacement of animals in medical experiments. For further details see: <https://frame.org.uk/>
- The **Institute for Laboratory Animal Research** is sponsored by a wide range of American organisations (including the National Institutes of Health) and their website includes recommendations for standards of housing and care. The full text is available at: <http://dels.nas.edu/ilar>
- The **International Union for the Conservation of Nature (IUCN)** is of particular relevance to those working in the field or on endangered species. The IUCN '*Red Book*' provides definitive information in this area. This material can be found at: [www.iucn.org](http://www.iucn.org)
- The **InterNICHE** website provides a large database of alternatives for educational purposes: [www.interniche.org](http://www.interniche.org)
- The **Laboratory Animals Association** is the professional association for those working at UK centres where laboratory animals are used. Their website is at: [www.lasa.co.uk](http://www.lasa.co.uk)
- The **National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs)** was set up following a House of Lords review of the Animals (Scientific Procedures) Act 1986 to act as a co-ordinating centre for UK research in this area. Its website provides a valuable and growing set of resources in the area of animal welfare and scientific research at: [www.nc3rs.org.uk](http://www.nc3rs.org.uk). For example, the NC3Rs provides e-learning modules on anaesthesia and analgesia, euthanasia and welfare assessment, specifically developed to deliver the learning outcomes of the training framework developed under Directive 2010/63/EU (and hence ASPA): [www.nc3rs.org.uk/elearning](http://www.nc3rs.org.uk/elearning). Animal handling is covered at: [www.nc3rs.org.uk/training-animals](http://www.nc3rs.org.uk/training-animals); the Experimental Design Assistant is available at: <https://eda.nc3rs.org.uk>. The NC3Rs also has a link to cover wildlife research, usually conducted with free-living animals

- in their natural habitat or with wild-caught animals in captive settings such as zoos. For further information see: [www.nc3rs.org.uk/wildlife-research](http://www.nc3rs.org.uk/wildlife-research).
- **Ratlife.org** is a website devoted to video material of laboratory rats living under semi-natural conditions. It provides an ethologically oriented account of rat behaviour that complements Stuart Barnett's classic account (Barnett, 1952) and can be found at: [www.ratlife.org/](http://www.ratlife.org/)
  - The **Royal Society for the Protection of Animals** is the best established animal welfare organisation in the UK. It has a specific department dealing with research animals and a series of useful publications including to advice to lay and other non-specialist members of Local Ethical Review Committees. This material can be reached at: [www.rspca.org.uk](http://www.rspca.org.uk)
  - **Sniffy the Rat** is a particularly nice example of a simulation that can be used to replace the use of rats in animal learning practicals at undergraduate level. The program runs on both Macintosh and Windows platforms and a demonstration version can be downloaded by following the links at: [www.wadsworth.com/psychology\\_d/special\\_features/sniffy.html](http://www.wadsworth.com/psychology_d/special_features/sniffy.html)
  - Understanding Animal Research (formerly the Research Defence Society) is an organisation that explains why animals are used in medical and scientific research and provides a range of relevant resources at: [www.understandinganimalresearch.org.uk](http://www.understandinganimalresearch.org.uk)
  - The **Universities Federation for Animal Welfare (UFAW)** was established 1926 to provide a scientific approach to all aspects of animal welfare, including that relevant to the use of animals of animals in research laboratories. UFAW offers small-scale grant support to tackle such problems. Their website is located at: [www.ufaw.org.uk](http://www.ufaw.org.uk)
  - The **Wellcome Trust**, as well as being a major funder of medically-related research, also has a policy statement and resources relevant to laboratory animal welfare at: <https://wellcome.ac.uk/what-we-do/our-work/our-policy-work-animal-research>
  - The **Wildlife Trusts** provide a useful summary of the Acts and legislation that protects wildlife and wild places in the UK. Their website is located at: [www.wildlifetrusts.org/uk-wildlife-law](http://www.wildlifetrusts.org/uk-wildlife-law)
  - The **People's Trust for Endangered Species** invests in research to test the best ways to protect endangered species in their natural habitats and to put what works into action. For further information see: <https://ptes.org/about-us/>

## TREATMENT OF DISORDERED ANIMAL BEHAVIOUR

- In the UK, the **Association for the Study of Animal Behaviour (ASAB)** accredits animal behaviour specialists with an expertise in the treatment of disordered behaviour. The Society was involved in drawing up the accreditation scheme. The following link will take you to the appropriate section of the ASAB website: [www.asab.org/](http://www.asab.org/)
- In the US, **Animal Behavior Associates Inc.** accredits animal behaviour specialists with an expertise in the treatment of disordered behaviour. The following link will take you to an associated website with lists of practitioners: <https://animalbehaviorassociates.com/>



the british  
psychological society  
promoting excellence in psychology

St Andrews House  
48 Princess Road East  
Leicester LE1 7DR, UK

 [www.bps.org.uk](http://www.bps.org.uk)  0116 254 9568  [info@bps.org.uk](mailto:info@bps.org.uk)

Incorporated by Royal Charter Registered Charity No 229642

REP55/03.2020