

# Wildlife information hub updated April 2024

## Organisation websites

The following organisations provide information which may be of assistance when dealing with British (and other) indigenous wildlife.

### Rehabilitation organisations

British Wildlife Rehabilitation Council (BWRC): [bwrc.org.uk](http://bwrc.org.uk)

International Wildlife Rehabilitation Council (IWRC): [theiwrc.org](http://theiwrc.org)

### Veterinary organisations

British Veterinary Association (BVA): [bva.co.uk](http://bva.co.uk)

British Veterinary Zoological Society (BVZS): [bvzs.org.uk](http://bvzs.org.uk)

Veterinary Defence Society (VDS): [thevds.co.uk](http://thevds.co.uk)

Royal College of Veterinary Surgeons (RCVS): [RCVS.org.uk](http://RCVS.org.uk)

### Welfare charities

Royal Society for the Prevention of Cruelty to Animals (RSPCA): [rspca.org.uk](http://rspca.org.uk)

Scottish Society for the Prevention of Cruelty to Animals (Scottish SPCA): [scottishspca.org](http://scottishspca.org)

Wild Animal Welfare Committee (WAWC): [wawcommittee.org](http://wawcommittee.org)

### Wildlife centres and hospitals

A list of UK wildlife centres and charities is available at: [www.helpwildlife.co.uk](http://www.helpwildlife.co.uk)

*There is no current system for approval or certification of wildlife rehabilitation centres. The above link provides a very useful list of centres and information about them. However, Born Free is currently unable to recommend or endorse individual centres.*

### Wildlife disease organisations

European Wildlife Disease Association (EWDA): [ewda.org](http://ewda.org)

Garden Wildlife Health: [gardenwildlifehealth.org](http://gardenwildlifehealth.org)

Wildlife Disease Association (WDA): [wildlifedisease.org](http://wildlifedisease.org)

### Wildlife Organisations

Badger Trust: [badgertrust.org.uk](http://badgertrust.org.uk)

Bat Conservation Trust (BCT): [bats.org.uk](http://bats.org.uk)

British Hedgehog Preservation Society (BHPS): [britishhedgehogs.org.uk](http://britishhedgehogs.org.uk)

The Wildlife Trusts: [wildlifetrusts.org](http://wildlifetrusts.org)

## Journal articles and other useful publications

### General wildlife rehabilitation information relevant to UK

#### Wildlife rehabilitation standards and reviews

Perceptions of responsibility and capability for treating wildlife casualties in UK veterinary practices

Barnes E, Farnworth MJ

Veterinary Record, 2017; 180, 197 (not open access)

Antimicrobial resistance in wildlife and in the built environment in a wildlife rehabilitation center

Baros Jorquera C, Moreno-Switt AI, Sallaberry-Pincheira N, Munita JM, Flores Navarro C, Tardone R, González-Rocha G, Singer RS, Bueno I

One Health 2021, 13, 100298.

Good Practice Guidelines for Wildlife Rehabilitation Centres

British Veterinary Zoological Society 2016 (open access)

[https://www.bvzs.org/images/uploads/BVZS\\_Good\\_Practice\\_Guidelines\\_for\\_Wildlife\\_Centres\\_011016.pdf](https://www.bvzs.org/images/uploads/BVZS_Good_Practice_Guidelines_for_Wildlife_Centres_011016.pdf)

Minimum Standards for Wildlife Rehabilitation (4<sup>th</sup> Edition)

Miller EA

IWRC 2012 (open access)

<http://thewrc.org/wp-content/uploads/2011/05/Standards-4th-Ed-2012-final.pdf>

Veterinary treatment and rehabilitation of indigenous wildlife

Mullineaux E

Journal of Small Animal practice, 2014; 55, 293-300 (open access)

<https://onlinelibrary.wiley.com/doi/epdf/10.1111/jsap.12213>

Legal responsibilities of veterinary professionals when working with wildlife centres

Mullineaux E

Companion Animal 2016 21:10, 592-597 (not open access)

First opinion veterinary surgeons and wildlife rehabilitation

Mullineaux E and Kidner P

BSAVA Companion, February 2021; pp 10 - 15 (not open access)

#### Wildlife rehabilitation and conservation

Putting Theory into Practice: Wildlife Health in Conservation.

Deem SL, Karesh WB, Weisman W

Conserv. Biol. 2001, 15, 1224–1233

Review of the Population and Conservation Status of British Mammals. A Report by the Mammal Society under Contract to Natural England, Natural Resources Wales and Scottish Natural Heritage

Mathews F, Kubasiewicz LM, Gurnell J, Harrower CA, McDonald RA, Shore RFA  
Natural England: Peterborough, UK, 2018; ISBN 978-1-78354-494-3.

Population-level effects of wildlife rehabilitation and release vary with life-history strategy  
Paterson JE, Carstairs S, Davy CM  
J. Nat. Conserv. 2021, 61, 125983.

Conservation and the 4 Rs, which are rescue, rehabilitation, release, and research.  
Pyke GH, Szabo JK  
Conserv. Biol. 2018, 32, 50–59.

The Influence of Human– Animal Interactions on Mental and Physical Health during the First  
COVID-19 Lockdown Phase in the U.K.: A Qualitative Exploration.  
Shoesmith E, Shahab L, Kale D, Mills DS, Reeve C, Toner P, Santos de Assis L, Ratschen, E  
Int. J. Environ. Res. Public Health 2021, 18, 76.

I. Birds of Conservation Concern 5  
Stanbury AJ, Eaton MA, Aebischer NJ, Balmer D, Brown AF, Douse A, Lindley P, McCulloch N,  
Noble DG, Win  
Br. Birds 2021, 114, 723–747.  
<https://www.bto.org/sites/default/files/publications/bocc-5-a5-4pp-single-pages.pdf>

Avian behaviour changes in response to human activity  
during the COVID-19 lockdown in the United Kingdom.  
Warrington MH, Schrimpf MB, Des Brisay P, Taylor ME, Koper N  
Proc. R. Soc. B 2022, 2740, 20212740.

Predation of wildlife by domestic cats *Felis catus* in Great Britain.  
Woods M, McDonald RA, Harris S  
Mammal Rev. 2003, 33, 174.

### **Wildlife rehabilitation admissions and outcomes**

A systematic review of factors affecting wildlife survival during rehabilitation and release.  
Cope HR, McArthur C, Dickman CR, Newsome TM, Gray R, Herbert CA  
<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0265514>

A review of RSPCA research into wildlife rehabilitation  
Grogan A, Kelly A  
Veterinary Record, 2013; 172, 211. (not open access)

Factors that can be used to predict release rates for wildlife casualties  
Molony S, Baker P, Garland L, Cuthill I, Harris S  
Anim. Welf. 2007, 16, 361–367

The effect of translocation and temporary captivity on wildlife rehabilitation success: An  
experimental study using European hedgehogs (*Erinaceus europaeus*).

Molony SE, Dowding CV, Baker PJ, Cuthill IC Harris S  
Biol. Conserv. 2006, 130, 530–537

Trends in Admissions and Outcomes at a British Wildlife Rehabilitation Centre over a Ten-Year Period (2012–2022)

Mullineaux E, Pawson C

Animals 2024, 14, 86. <https://doi.org/10.3390/ani14010086>

### **Wildlife pathology**

Garden Wildlife Health Disease Fact Sheets

<https://www.gardenwildlifehealth.org/garden-wildlife/> (open access)

Infectious Diseases of Wild Mammals and Birds in Europe

Gavier-Widen D, Meredith A, Duff JP

Wiley-Blackwell 2012

### **General wildlife medicine textbooks and papers**

Medical Management of Wildlife Species A Guide for Veterinary Practitioners

Sonia M. Hernandez, Heather W. Barron, Erica A. Miller, Roberto F. Aguilar, Michael J.

Yabsley (Eds)

Wiley Blackwell 2019

Principles of triage and first aid in wildlife casualties

Mullineaux E

Companion Animal, 2017; 22:6, 350-356 (not open access)

Veterinary care of British wildlife casualties

Mullineaux E and Keeble E

BSAVA Companion August 2017, pp 12 - 14 (not open access)

BSAVA Manual of Wildlife Casualties (2nd Edition)

Mullineaux E, Keeble E (Eds.) (2016) BSAVA Publications, Gloucester

Available from: <https://www.bsavalibrary.com/content/book/10.22233/9781910443316>

### **Medicines and formularies**

BSAVA Guide to the Use of Medicines 2023 (open access)

<https://www.bsavalibrary.com/content/chapter/10.22233/9781913859169.app1#abstract>

BSAVA Small Animal formulary, 11<sup>th</sup> Edition Part B: Exotic Pets 2020

BSAVA Publications, Gloucester

Paper edition:

<https://bsavaportal.bsava.com/s/store#/store/browse/detail/a1B8d000002f9AKEAY>

Electronic edition (including open access wildlife doses):

<https://www.bsavalibrary.com/content/formulary/exotic-pets>

Carpenter's Exotic Animal Formulary ( ) (6<sup>th</sup> Edition)  
Carpenter JW & Harms C Elsevier Saunders 2022

Wilson, H. (2023), Prescribing antimicrobials to wildlife without examination. In Practice, 45: 301-302. <https://doi.org/10.1002/inpr.335>  
(2023), Comments on: Prescribing antimicrobials to wildlife without examination. In Practice, 45: 366-367. <https://doi.org/10.1002/inpr.346>

## Species specific information

### Badgers

Enteropathogens of juvenile Eurasian badgers (*Meles meles*) – Diagnosis, treatment and control.

Barlow A, Mullineaux E, Cowen S, Kidner P

World and European Wildlife Disease Associations Conference, Lyon, France. 2012 (open access)

<https://www.secretworld.org/wp-content/uploads/2018/02/Enteropathogens-of-juvenile-Eurasian-badgers-for-web.pdf>

Parvovirus enteritis in Eurasian badgers (*Meles meles*)

Barlow AM, Schock A, Bradshaw J, Mullineaux E, Dastjerdi A, Everest DJ, McGowan S, Steinbach F, Cowen S

Veterinary Record, 2012; 170, 416. (not open access)

Practical advice for vets in general practice who may be confronted with an injured badger  
Mullineaux E

BSAVA Companion 2012, pp 20 - 23 (2012) (not open access)

Badger Protocol

Ed. Mullineaux E

Badger trust, Defra, Secret World Wildlife Rescue, 2018 (open access)

<https://www.secretworld.org/wp-content/uploads/2018/04/Badger-Rehabilitation-Protocol-Final-Liz-07032018.pdf>

Managing public demand for badger rehabilitation in an area of England with endemic tuberculosis.

Elizabeth Mullineaux, Pauline Kidner

Veterinary Microbiology, 2011 Jul 5;151(1-2):205-8. (open access)

[https://hal.archives-ouvertes.fr/hal-00701906/file/PEER\\_stage2\\_10.1016%252Fj.vetmic.2011.02.045.pdf](https://hal.archives-ouvertes.fr/hal-00701906/file/PEER_stage2_10.1016%252Fj.vetmic.2011.02.045.pdf)

Rehabilitating and releasing badgers in England

Mullineaux E, Phoenix J, Brown E

In Practice 2019;41 (5):198-204. (open access)

<https://inpractice.bmj.com/content/inpract/41/5/198.full.pdf>

## **Bats**

Bat Care Guidelines 2<sup>nd</sup> Edition

Bat Conservation trust (open access)

<https://cdn.bats.org.uk/images/Bat-Care-Guidelines-2016-final.pdf?mtime=20181130163722&focal=none>

Handling and veterinary care of British bats

Bexton S, Couper D

*In Practice* 2010;32 (6):254-262. (not open access)

## **Birds of prey**

Veterinary care of wild owl casualties

Couper D, Bexton S

*In Practice* 2012;34 (5):270-281. (not open access)

Admissions, diagnoses, and outcomes for Eurasian sparrowhawks (*Accipiter nisus*) brought to a wildlife rehabilitation centre in North-West England.

Kelly A, Bland M

*J. Raptor Res.* 2006, 40, 231–235

Veterinary care of raptors

Kubiak M, Forbes N

*In Practice* 2011;33(1):28-32. (not open access)

Causes, temporal trends, and the effects of urbanization on admissions of wild raptors to rehabilitation centers in England and Wales.

Panther CT, Allen S, Backhouse N, Mullineaux E, Rose C.-A, Amar A

*Ecol. Evol.* 2022, 12, e8856.

Concentration and origin of lead (Pb) in liver and bone of Eurasian buzzards (*Buteo buteo*) in the United Kingdom.

Taggart MA, Shore RF, Pain DJ, Peniche G, Martinez-Haro M, Mateo R, Homann J, Raab A, Feldmann J, Lawlor AJ et al.

*Environ. Pollut.* 2020, 267, 115629.

## **Foxes**

Detection of Circovirus in Foxes with Meningoencephalitis, United Kingdom, 2009–2013

Bexton S, Wiersma LC, Getu S, van Run PR, Verjans GMGM, Schipper D, Schapendonk CME, Bodewes R, Oldroyd L, Haagmans BL, Koopmans MMP, Smits SL.

*Emerging Infectious Diseases* 2015. 21, 7 (open access)

[https://wwwnc.cdc.gov/eid/article/21/7/15-0228\\_article](https://wwwnc.cdc.gov/eid/article/21/7/15-0228_article)

Veterinary treatment of fox casualties

Couper D and Bexton S

*In Practice* 2016;38 (3):130-138 doi:10.1136/inp.i707 (not open access)

Infectious Causation of Abnormal Host Behavior: *Toxoplasma gondii* and Its Potential Association With Dopey Fox Syndrome.

Milne G, Fujimoto C, Bean T, Peters HJ, Hemmington M, Taylor C, Fowkes RC, Martineau HM, Hamilton CM, Walker M, Mitchell JA, Le' ger E, Priestnall SL and Webster JP  
Frontiers in Psychiatry 2020 11:513536. (open access)

<https://www.frontiersin.org/articles/10.3389/fpsy.2020.513536/full>

Increased prevalence and geographic spread of the cardiopulmonary nematode *Angiostrongylus vasorum* in fox populations in Great Britain

Taylor CS, Garcia Gato R, Learmount J, Aziz NA, Montgomery C, Rose H, Coulthwaite CL, McGarry JW, Forman W, Allen S, Wall R, Morgan ER

Parasitology 2015, 142(9), 1190-1195. doi:10.1017/S0031182015000463 (not open access)

Infectious canine hepatitis in red foxes (*Vulpes vulpes*) in wildlife rescue centres in the UK

Walker D, Abbondati E, Cox AL, Mitchell GB, Pizzi R, Sharp CP, Philbey AW.

Vet Rec. 2016 Apr 23;178(17):421. doi: 10.1136/vr.103559

## Deer

Blood L-Lactate Concentration as an Indicator of Outcome in Roe Deer (*Capreolus capreolus*) Admitted to a Wildlife Rescue Center.

Di Lorenzo E, Rossi R, Ferrari F, Martini V, Comazzi S

Animals 2020, 10, 1066. (open access)

<https://www.mdpi.com/2076-2615/10/6/1066>

Managing antler problems in deer

Fletcher J, Foster A, Goddard P, et al

In Practice 2016;38 (10):513-519. (not open access)

A survey of enteric disease agents in UK deer populations

Pearce SJ, Turner K, Cogan TA, Foster AP

Research in Veterinary Science 2023, 154, 113-123

<https://doi.org/10.1016/j.rvsc.2022.12.007>

## Garden birds (see also 'pigeons' below)

Survival rates of cat-attacked birds admitted to RSPCA wildlife centres in the UK:

Implications for cat owners and wildlife rehabilitators.

Baker P, Thompson R, Grogan A

Anim. Welf. 2018, 27, 305–318.

Garden Wildlife Health Disease Fact Sheets - birds

<https://www.gardenwildlifehealth.org/garden-wildlife/#birds>

Early life disadvantage strengthens flight performance trade-offs in European starlings,

*Sturnus vulgaris*

O'Hagan D, Andrews CP, Bedford T, Bateson M, Nettle D

Animal Behaviour 102 (2015) 141-148

<https://www.sciencedirect.com/science/article/pii/S0003347215000251>

Improving the welfare of both wildlife and domestic cats

Onyejekwe E

Vet. Nurs. J. 2022, 37, 20–25

### **Hedgehogs**

Evaluation of alfaxalone and dexmedetomidine for intramuscular restraint in European hedgehogs (*Erinaceus europaeus*)

Bellini L, Pagani G, Mollo A, Contiero B, Loretto E, Gelli D

Veterinary Record, 2019; 185, 145. (not open access)

Applied Hedgehog Conservation Research (Special edition, 30 papers)

Berger A, Reeve N, Rasmussen SL

[https://www.mdpi.com/journal/animals/special\\_issues/hedgehogs](https://www.mdpi.com/journal/animals/special_issues/hedgehogs)

Veterinary care of free-living hedgehogs

Bexton S and Couper D

In Practice, 2019; 41 (9):420-432. (not open access)

British Hedgehog Preservation Society

Care and Treatment of Sick and Injured Hedgehogs (open access)

<https://www.britishhedgehogs.org.uk/leaflets/L8-Care-and-Treatment.pdf>

BHPS Caring for hoglets

<https://www.britishhedgehogs.org.uk/leaflets/L1-Caring-for-Hoglets.pdf>

BHPS Collaborative agreement on hedgehog hibernation weights

<https://www.britishhedgehogs.org.uk/leaflets/Hibernation-Weight.pdf>

BHPS Guidance for releasing rehabilitated hedgehogs

<https://www.britishhedgehogs.org.uk/wp-content/uploads/2018/09/BHPS-Guidance-For-releasing-Rehabilitated-Hedgehogs.pdf>

BHPS Hedgehogs at shows and talks code of conduct

<https://www.britishhedgehogs.org.uk/leaflets/shows-talks.pdf>

BHPS Hedgehogs on TV code of conduct

<https://www.britishhedgehogs.org.uk/leaflets/Hedgehogs-on-TV-Code-of-Conduct.pdf>

BHPS Worm Identification chart

<https://www.britishhedgehogs.org.uk/leaflets/worms.pdf>

Admission and Survival Trends in Hedgehogs Admitted to RSPCA Wildlife Rehabilitation Centres.

Burroughes ND, Dowler J, Burroughes G



Proc. Zool. Soc. 2021, 74, 198–204.

Accumulation of Anticoagulant Rodenticides in a Non-target Insectivore, the European hedgehog (*Erinaceus europaeus*).

Dowding CV, Shore RF, Worgan A, Baker PJ, Harris S  
Environ. Pollut. 2010, 158, 161–166.

Parasites of European hedgehogs (*Erinaceus europaeus*) in Britain: epidemiological study and coprological test evaluation.

Gaglio G, Allen S, Bowden L. et al.

European Journal of Wildlife Research, 2010; 56, 839–844 (not open access)

<https://doi.org/10.1007/s10344-010-0381-1>

Garden Wildlife Health Disease Fact Sheets - hedgehogs

<https://www.gardenwildlifehealth.org/garden-wildlife/#hedge> (open access)

Detection and Control of Dermatophytosis in Wild European Hedgehogs (*Erinaceus europaeus*) Admitted to a French Wildlife Rehabilitation Centre.

Le Barzic C, Cmokova A, Denaes C, Arné P, Hubka V, Guillot J, Risco-Castillo V.

Journal of Fungi. 2021; 7(2):74. <https://doi.org/10.3390/jof7020074>

An exploratory investigation of glucocorticoids, personality and survival rates in wild and rehabilitated hedgehogs (*Erinaceus europaeus*) in Denmark.

Rasmussen SL, Kalliokoski O, Dabelsteen T, Abelson K

BMC Ecol. Evol. 2021, 21, 96

<https://bmcecol.evol.biomedcentral.com/articles/10.1186/s12862-021-01816-7>

Hedgehogs in the waiting room

Partridge T

BSAVA Companion, January 2020; pp 12 - 17 (not open access)

Veterinary care of the hedgehog

Ian Robinson and Andrew Routh

In Practice 1999, 21 (3) 128-138 (open access)

[https://www.researchgate.net/publication/254738659\\_Veterinary\\_care\\_of\\_the\\_hedgehog](https://www.researchgate.net/publication/254738659_Veterinary_care_of_the_hedgehog)

Hibernation Patterns of the European Hedgehog, *Erinaceus europaeus*, at a Cornish Rescue Centre.

South KE, Haynes K, Jackson AC

Animals, 2020; 10, 1418. (open access)

<https://www.mdpi.com/2076-2615/10/8/1418#cite>

Should rehabilitated hedgehogs be released in winter? A comparison of survival, nest use and weight change in wild and rescued animals.

Yarnell RW, Surgey J, Grogan A et al.

European Journal of Wildlife Research, 2019; 65, 6. (open access)

<https://link.springer.com/article/10.1007/s10344-018-1244-4>

### **Otters**

Health status of otters in southern and south west England 1996–2003. In Science Report: SC0010064/SR1; Bristol, Environment Agency: Bristol, UK, 2007.

Simpson VR

<https://assets.publishing.service.gov.uk/media/5a756a9640f0b6360e473f33/scho0307bmk1-e-e.pdf>

### **Pigeons**

Factors affecting the likelihood of release of injured and orphaned woodpigeons (*Columba palumbus*)

Kelly A, Halstead C, Hunter D, Leighton K, Grogan A and Harris M

Animal Welfare, 2011; 20: 523-534 (open access)

[https://www.researchgate.net/publication/233684910\\_Factors\\_affecting\\_the\\_likelihood\\_of\\_release\\_of\\_injured\\_and\\_orphaned\\_woodpigeons\\_Columba\\_palumbus/link/57a2f50508aeef8f31202fe4/download](https://www.researchgate.net/publication/233684910_Factors_affecting_the_likelihood_of_release_of_injured_and_orphaned_woodpigeons_Columba_palumbus/link/57a2f50508aeef8f31202fe4/download)

### **Reptiles and amphibians**

Garden Wildlife Health Disease Fact Sheets - reptiles

<https://www.gardenwildlifehealth.org/garden-wildlife/#rept>

Garden Wildlife Health Disease Fact Sheets - amphibians

<https://www.gardenwildlifehealth.org/garden-wildlife/#amph>

### **Waterfowl**

Veterinary care of sick and injured mallards

Bexton S, Couper D

In Practice, 2014; 36 (7):356-366. (not open access)

This information hub was compiled by Dr Liz Mullineaux, in collaboration with other wildlife rehabilitators and veterinary professionals last update on 8th April 2024.

**Disclaimer:** This information is primarily for the benefit of veterinary professionals (veterinary surgeons and veterinary nurses registered with the Royal College of Veterinary Surgeons (RCVS)) and registered students in those subjects.