

Companion animals — mainly dogs and rabbits — are similarly examined. The book includes a rather withering assessment of the nature of the relationship between dogs and their owners and a scathing criticism of the appalling nature of the extremes of dog breeding. Sean, however, is much too collegiate to pin the blame on anyone in particular for this sorry state of affairs. I've known Sean for several years and this approach is characteristic. He calmly calls for a collaborative approach involving scientists, veterinarians and breeders to find solutions. And it is this lack of preaching that makes the book all the more powerful. One might question whether this approach is appropriate for all the issues the book covers — I was expecting and hoping that Sean might show his teeth at some stage in the book, but they stay hidden. It's simply not in his nature.

The book's concluding chapter, 'The power of one', includes a useful guide for the interested reader — how to purchase animal products ethically, how to influence businesses and politicians — whether acting individually and collectively, Sean believes we can make a difference. As an individual, he advocates eating less and better meat in the expectation that this will both improve the welfare of farmed animals and reduce global heating. I wish I shared his optimism: the amount of cheap protein that derives from the hapless broiler increases every year and its growing dominance of agriculture is a cause for concern that won't be solved by a few of us buying the occasional free-range chicken.

A book like this is important not just for its content but for the fact that exists at all. The veterinary profession risks being characterised as an enabler of animal exploitation. Sean Wensley's new book gives the lie to this view. An increasing number of mainly young veterinarians are unhappy with the treatment of farmed animals and companion animals. Too few of us put pen to paper to express these thoughts. Sean is to be congratulated for doing just that and doing it in a way that is accessible and above all influential.

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### ***Behavioral Biology of Laboratory Animals***

Edited by K Coleman and SJ Schapiro (2022). Published by CRC Press, Boca Raton, FL 33487, USA. 560 pages Hardback (ISBN: 978-0-367-02923-4). Price £154.55.

The study of laboratory animal behaviour is of fundamental importance to biomedical research. It provides an insight into the onset, development, and progress of neurological, neurodegenerative, and behavioural diseases. It sheds light upon the influence of genes in our behaviour, their interaction with the environment, and how this is affected by mutations. It provides a gauge through which to evaluate induced changes when testing safety and efficacy of therapies. And, most importantly, an understanding of the natural behaviour of laboratory animals and their wild counterparts enables us to meet animals' behavioural needs and improve their welfare in a meaningful way.

*Behavioral Biology of Laboratory Animals* (edited by Kristine Coleman and Steven J Schapiro) thoroughly addresses the main behavioural features of the most common laboratory animal species, throughout 560 pages divided into 30 chapters. The roster of 49 contributors is predominantly female (73%) and from English-speaking countries (82%). The writing style is accessible, yet scientifically rigorous. Despite the lack of a glossary, the field-specific terminology is broadly known and will be readily familiar to the book's target-audience.

Whilst delivering an extensive scientific remit, each chapter in the book is evidently very clearly conceived and structured, expressing a clear aim to inform optimal husbandry and care decisions via the meeting of each species' specific behavioural needs.

The first five chapters are introductory and are followed by a series of species-specific chapters. After a quick overview, readers are introduced to fundamental animal behaviour and ethology concepts. Although those searching specifically for an ethology textbook would be better served looking elsewhere, these chapters have merit in the way they frame behavioural concepts in terms of their impact on laboratory animal care and welfare, thereby highlighting the relevance of identifying abnormal behaviour and of understanding behavioural clues when assessing welfare. These introductory chapters also provide the reader with the necessary information needed to operationalise the content in the species-specific chapters, in order to develop and implement monitoring protocols, behavioural management strategies, and measures for addressing behavioural problems. I would, thus, recommend that as a minimum, the introductory chapters should be read along with chapters featuring species of particular interest.

These species-specific chapters cover a range of species that, in total, constitute over 90% of the laboratory animals used in the EU (EU-28 in 2017, source: ALLURES database; European Commission). This comprehensive list includes the more common rodents, such as mice, rats, guinea pigs, and hamsters as well as those less commonly used, such as deer and white-footed mice, gerbils, and voles. Companion animal species (dogs and domestic cats), farmed animal species (sheep, cattle, pigs) and those somewhere in-between (horses, rabbits, and ferrets), are also included. The list of bird species covered is more restricted, but highly representative, as it includes chickens, quail, and zebra finches. Non-human primates are extensively represented, with marmosets, squirrel monkeys, owl monkeys, capuchins, rhesus and long-tailed macaques, vervet monkeys, and baboons each having a chapter devoted to them. Two of the chapters, namely the ones on amphibians and reptiles, encompass too wide a range of species for the pages provided, and are therefore somewhat underwhelming. However, both constitute a valuable contribution to science-based welfare and care of species for which there is a paucity of peer-reviewed papers.

Contrastingly, the immense fish taxon is only represented by a single species, the growingly popular zebra fish.

The most noted absentees are goats, cephalopods, and other fish species. Although together these comprise a combined total of less than 8% of the animals used in EU-28, including them in a future edition would definitely be a plus, as they are of particular relevance in certain specific research fields and countries (eg in Norway 93% of all animals used in research belong to the ‘other fish’ category). Another useful addition would have been the spiny mouse (*Acomys* spp), an emerging animal model in regeneration studies that currently presents considerable housing and welfare challenges.

The text is structured consistently for all of the species-specific chapters which not only eases the reading experience but facilitates consultation, ensuring that all the key points are readily available for each group of animals covered in the book. Hence, each chapter contains an introduction on the use and relevance of the given species — or group of species — in research, describing essential aspects of their natural behaviour, as well as their normal and abnormal behaviour in captivity. The book contains a plethora of figures and pictures which, in most chapters, includes well-specified examples of recommended housing for captive animals, following high standards of enrichment. The beautiful front cover art should also be highlighted.

Another welcome feature is the annex containing a selection of ethograms based on or adapted from — duly referenced — key literature, for studying the behaviour of the most commonly used species covered in the book, namely rats, guinea pigs, hamsters, rabbits, ferrets, domestic cats, pigs, horses, zebra finches, zebra fish, marmosets, capuchin monkeys, vervet monkeys, and baboons (plus a dog ethogram embedded in the respective chapter). Readers are also directed to other reliable sources for comprehensive ethograms for mice, and macaques, freely available on-line.

I recommend *Behavioral Biology of Laboratory Animals* for anyone with an interest in studying the behaviour and welfare of laboratory animal species, as well as animal welfare officers, designated veterinarians, and all those responsible for animal care and behavioural management in research laboratories, as well as in parks and zoos hosting these species. Lecturers in animal welfare-related topics will also find an essential science-based reference for both them and their students. This includes those teaching modules EU-3.1, EU-4, and EU-5 in laboratory animal courses following EU-functions.

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### ***Guilty Pigs: The Weird and Wonderful History of Animal Law***

K Barnett and J Gans (2022). Published by La Trobe University Press (in conjunction with Black Inc), 22-24 Northumberland Street, Collingwood, VIC 3066, Australia. 368 pages Paperback (ISBN: 9781760641849). Price A\$ 34.99 (ebook: A\$16.99).

If you are not a lawyer and wondering about the relevance of a book about the history of animal law, I can reassure you that this is an interesting and thought-provoking read for both lawyers and non-lawyers alike. The authors have not attempted to write a ‘black letter’ law textbook, tracing judicial precedent and legislation. Rather, the focus is on the story of how legal systems approach non-human animals where their interests come into contact with those of people. The book gives us a historical perspective on the origins of the laws relating to animals, setting in context the current treatment of animals by legal systems.

Another concern that may dissuade those outside the law from reading this book is that it is likely to be of niche interest to lawyers and legal academics practicing or teaching animal-related law, with little relevance or interest to wider society. I would suggest that the converse is actually true for a number of reasons.

Firstly, the book appears to be written with a lay audience in mind, there is no legal jargon and where legal terms are necessarily used, there is a clear explanation of the meaning. The book is also written in an interesting and entertaining matter, notwithstanding the seriousness of the issues touched upon and there is a focus on storytelling, which can be absent from black letter law case reports.

Secondly, instead of accepting the law as it is, the book offers an understanding of why it is so, a vital first step in the critical evaluation of the *status quo*. Without understanding how we reached the position we are in as regards the law’s categorisation and approach to animal interests, it is harder to understand the case for change.

Thirdly, and finally, the book is not about the law *per se*, but wider societal values towards animals. In the words of Mike Radford “The law is the means by which society expresses its collective choice” (Radford 2001; p 11). The book therefore speaks to human relationships with other animals, and it significantly adds to our understanding of this relationship, including how our attitudes have been shaped by ancient philosophy, and religious and cultural and attitudes towards animals, which have evolved over time.

The book is not about the laws that regulate our conduct towards animals. It does not attempt to chart the laws that seek to protect animal welfare. Neither does it critique animal welfare laws, which would have been a vast undertaking. It is not intended as a reference book and written from an international perspective; care should be taken not to rely upon it for legal research purposes, that is not the intention.