

Europe and North America, the ringers grip is widely used and allows adequate restraint and manipulating with constriction. Compared with Figure 29.101-103, the risk of crushing or asphyxiating a bird, especially if inexperienced is high. Similarly, the author highlights a technique for catching snakes as they engulf a prey item (Figure 30.54), before highlighting that it is a bad idea: why therefore highlight such a bad technique if it compromises welfare at all?

Overall, this book is a fundamental resource for every person working with animal handling. However, it does not deal adequately with many important issues and welfare implications of capture, it only briefly discusses the issue of tranquilising free-roaming wildlife nor does it adequately deal with pre-release welfare assessment or care. The latter is of equal importance to captive and wild-living animals. All taxa-specific chapters deal very specifically with the danger potential to humans. However, by balance, there is little focus on the specific welfare issues that may be encountered. As already discussed, some of these are covered in Chapter 9 ‘Medical problems during restraint’, but at no time is there a link between specific medical problems and more susceptible species/taxa. Such a link would be of great benefit to persons working on those species, as it would provide specific awareness to problems. Chapter 9 and to a lesser extent Chapter 20 also suffer somewhat from layout, with a confusing and sometimes difficult use of headings and sub-headings that aren’t easy to navigate.

The book also fails to remain subjective in either its opinions or the biographical anecdotes the author uses throughout the chapters. I fail to see the benefits of labeling animal rights activists as “usually are vegetarian” and animal rights advocates as “essentially against conservation” (both Chapter 9). The author frequently uses anecdotes to illustrate the dangers of taking animals lightly. These can have a dual effect; they can demonstrate the danger potential in real situations. However, they also fall into the personal opinions by the author. The use of loose comments, eg most (big) cats will be docile around people if trained properly, is counter-productive against the dangers of working with these animals.

The major question is whether this book improves animal welfare. In short, yes. Anybody who reads this book will have a better understanding of safely handling and restraining animals of all types. If the question, is whether it advances animal welfare, then the answer is no. In fact, the book is somewhat light on animal welfare and misses many opportunities to discuss or highlight issues of animal welfare concern. The book at times overly reflects the author’s personal opinions and experiences, and would in fact benefit more as a collaborative, edited volume. Nonetheless, this book is important for its content, particularly for students or those persons with little experience. However, it should be considered as a companion text amongst more taxa- or species-specific literature.

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Climate Change and Sustainable Development: Ethical Perspectives on Land Use and Food Production. (Edited papers from the EurSAFE 2012 Conference held in Tübingen, Germany 30 May to 2 June 2012)

Edited by T Potthast and S Meisch (2012). Published by Wageningen Academic Publishers, PO Box 220, 6700 AE Wageningen, The Netherlands. 528 pages Paperback (ISBN 978-90-8686-197-2). Price €74.00.

This collation of conference papers is like an omelette — for an animal scientist hoping to read about the potential effects of climate change on animals and animal welfare, much of the book is filled with the ‘opaque language’ of a quite different type of science. However, within the mix of the 79 papers in the collection, there are some nuggets of animal welfare interest.

The book covers a wide range of topics — including such diverse areas as: property rights; the ethical dilemmas of migration; the ethics of new ways that people are starting to live in forests; the six functions of agriculture — the 6Fs (Food, Feed, Fuel, Fibre, Flower and Fun!); the effects of shifts in agriculture to produce agro-energy; the possible role of a meat tax (to offset greenhouse gas emissions) and the potential welfare impacts of surveillance for animal disease in the changing international world of animal production; the effects of income on meat consumption; and changing animal use and the view of animals in China.

Some of the sentences created by the authors in their efforts to find words to describe the complex nature of the ethics of climate change are quite inscrutable. For example, what does “The main conclusion of the paper is that in order to have a climate friendly food policy it is necessary not only to oppose the economic and political power of corporations but also to challenge neoliberalism on theoretical grounds” actually mean? A small number of the papers cross the boundary between science and art: the paper on food production under the rubric of *poiēsis* (art) explores the multiple meanings of food — some of the “soft impacts” of which are “lifestyle, culture, religion, aesthetics, and human dignity, and summed up in the notion of food as an art disclosing these and unveiling a world”. Whilst some of the expressive writing used in many of the papers is interesting in its creativity, much of the writing I found to be quite opaque. I had real trouble in following the path of some of the arguments being made as the logic seemed to become obscured in a kind of brushwood of jargon-filled sentences, for example: “strategy scenarios assume implementation of SC instrument bundles”, or “four different worldviews: personal egocentric (subjective-reductionist), cultural-social (subjective-holistic), ecological (objective-holistic) and technical (objective-reductionist)” left me gasping for mental air as I tried to follow the course of the discussions. Perhaps every specialist group (animal welfare scientists included) become so embedded in their own word arena that to cross into another camp for a while becomes increasingly difficult? This is how I felt reading some of the papers in this collection.

There are, however, a few animal welfare and animal use issue nuggets within the papers presented. A paper titled ‘Cultured meat: will it separate us from nature?’ provided thought-provoking questions on the nature (or un-nature) of meat created by cell culture. The paper outlines the potential advantages of cultured meat; possible environmental gains, no sentient farming and slaughter and so no suffering, health (cell lines not susceptible to conventional ‘animal disease’) and the potential ethical dilemmas, the moral nature of naturalness, alterations in land use, reliance on technology. In my mind I had also the question — not spoken by the authors, but implied — what of the loss of ‘animal lives and animal experience’?

Several papers explore how some concepts, such as increasing the use of bioenergy, may cause unforeseen animal and environmental consequences. In a paper titled ‘Setting the rules of the game: ethical and legal issues raised by bioenergy governance methods’, for example, a discussion of how farmers are starting to use biomass (from waste products or from wood or other pellets) which may be assessed as CO₂ neutral — but it may be that a shift to biomass fuel may in fact significantly increase the CO₂ concentration in the atmosphere when compared to current levels. The ethical aspects of meat production on nature are explored in a number of papers and the estimates that it takes 15,000 litres of water to produce 1 kg of beef, 4,000 to produce 1 kg of pork and 1,000 litres to produce 1 kg of grain, and the effects of deforestation are used to illustrate the high potential ‘costs’ of farming animals for meat. In a paper ‘Fewer burps in your burgers or more birds in the bush?’ mechanisms for potentially reducing the production of methane by cattle and sheep through changes in the varieties of grass grown, use of additives or even of vaccination of animals to alter rumen bacterial content are discussed. The well-known film produced by Al Gore ‘An Inconvenient Truth’ is referred to in a number of the papers, and in an interesting paper ‘Inconvenient truths and agricultural emission’ the author discusses whether increasing efficiency (intensification) of animal production will inevitably cause significant conflict between human wishes (to be fed) and other factors, including environmental needs, such as to protect as far as possible the natural environment from forces including emissions, genetic and selective alteration of animals to maximise productivity and the potential for pressurisation of animal welfare issues.

In the paper ‘Food Ethics: new religion of common sense?’ the authors describe work to educate children in Austria regarding care of pet animals, farm animals and lab animals using video material and brochures. The authors conclude that not only does education of children in these areas have both predicted, but also less predictable outcomes, one of which is that children become “ambassadors educating their own parents” about animal and food issues.

In a paper written as a result of an industry initiative to write ethical production standards for cattle in the Netherlands — ‘Implementation of ethical standards in a cattle improvement company’, the authors describe the

process of creating standards by bringing together scientists, animal welfare organisations, ethicists, economists and the industry which resulted in the creation of an agreed ‘ethical passport’ for staff to help translate principles into the daily activity of the employees. The paper ‘Leaving the ivory tower or back into theory? Learning from paradigm cases in animal ethics’ makes a proposal that animal protection is part of a mix of other factors, such as human welfare, gaining knowledge which influence the ‘normative orientation of societies’ when determining animal welfare. The authors discuss how ‘academic freedom’ is a component of the “basis for trustworthy mediation of societal conflicts without losing sight of practical demands”. In a paper which discusses the ethical dilemmas with killing and eating our ‘more cognitive relatives’ (in this case great apes and dolphins), the authors discuss the food ethics of using animals which we now perceive as having a high moral status, as food. This raises the question ‘are these animals ‘moral strangers’? ie does an awareness of relatedness (in this case cognitive relatedness) bring awareness of responsibility? I learned something interesting about the possible perception of animals through the definitions of the Chinese words *dongwu* (an object which moves) and *chongwu* (an object you pamper) in the paper ‘The Chinese animal: from food to pet’, and the paper explores the effects of lifestyle changes in China on ethical consciousness.

In a paper that appears far away from title of the conference (Climate Change and Sustainable Development) the authors of the paper ‘Assessing the animal ethics review process’ focus on the use of animal ethics committees (AECs) in biomedical research. They conclude that there is significant variation in both process and outcomes of decision-making of AECs, the implication being that much could be learned from ethical committee function if applied in different settings, for example in assessing animal ethical issues in sustainable agriculture? In one of the few papers which put numeric values to their discussions, the use of ‘Animal Kuznets curves’ are described, and the (quite surprising) relationship between the number of animals slaughtered and per capita income. In summary, with income of US\$11,000, US\$19,000 and US\$23,000, a metric of animals slaughtered equalled 6.8, 11.0 and 9.4, respectively, indicating that there is an interesting and complex relationship between economic growth and use of animals (the authors caution that these results should be interpreted with care).

Overall, the 79 papers in this conference book will not, in general, provide immediate reward for the animal scientist with an interest in animal welfare. However, as an overview of the diverse views, opinions, jargon-filled language and branching research strands in the ethical issues associated with climate change, the collection is of interest. Like the omelette, if you can extract and enjoy the nuggets of your own focus area from within the mixture then you may, like I did, find some highlights of interest in this diverse book.

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