

Publications

Bushmeat and Livelihoods: Wildlife

Management and Poverty Reduction edited by Glyn Davies and David Brown (2007), ix + 274 pp., Blackwell Publishing, Malden, USA. ISBN 9781405167796 (pbk), GBP 39.99.

Two of the great moral struggles of this century are conservation and poverty alleviation. Though both struggles have a history reaching back more than 100 years, it is only in the last decade or so that these histories have become directly intertwined. This intersection has generated many claims about the potential for underlying harmony between the two, with many groups proclaiming the power of harnessing conservation for poverty alleviation or achieving conservation by eliminating poverty.

Despite the rhetoric, the evidence is scant for these claims of harmony between conservation and poverty alleviation. There have been a few places, in fact, where claims have been made that these two are in opposition. Nowhere has this disagreement been more marked than in the arena of bushmeat use and poverty alleviation. On the one side are those who have stated that the harvest of wild animals for meat is a key component in alleviating rural poverty while others have argued that almost any harvest is unsustainable and therefore a threat to the conservation of animal species. These arguments have played out most forcefully with large mammalian species in the tropical forest countries of Africa, and have often involved those working in Central Africa arguing against bushmeat use and those working in West Africa arguing for use.

Bushmeat and Livelihoods is a book designed to address exactly this dynamic, concentrating on contributions in these two regions of Africa. The volume is the result of an international conference held at the Zoological Society of London in 2004 that brought together conservationists and development practitioners interested in addressing the growing interest in the bushmeat trade as a potential threat to wildlife conservation in the tropics at the same time that it is considered to be an important part of livelihood strategies of the rural poor. The volume is designed to integrate the two streams of research to be able to recommend ways forward for both policy makers and practitioners that are sensitive to both socioeconomic and biological perspectives. The tropical African experience is placed in context with limited contributions from Latin America and Asia.

Food from wild animals is a difficult resource to study. It is a 'fugitive resource' with the owner only exerting ownership after the animal is killed. It is often, although not always, the food of poor people. The trade is almost always informal and of uncertain legal status. Finally, consumption of bushmeat is often regarded as a sign of so-called underdevelopment. All of these factors make study of the trade difficult and statistics unavailable or unreliable. For this reason, the richness of the contributions of this volume are welcome.

The volume consists of 15 chapters divided into four parts. The first, and longest, section addresses bushmeat from the market and household perspective. Six case studies look at hunting, trapping, markets, and livelihoods in Sierra Leone, Ghana, Cameroon, Equatorial Guinea, Zambia, and across tropical Africa. The second section examines the institutional context, with case studies from Namibia and Northern Congo and two thematic chapters on institutional and livelihood perspectives. The third section looks at extra sectoral influences and models, with contributions from Zambia and Canada, an examination of the role of bushmeat in poverty reduction strategy papers, and a comparison between commercialization of non-timber forest products and commercialization of bushmeat. Finally, there is a section with a single chapter looking at the situation in tropical Asia.

Reading the chapters provides many interesting details and make clear how complicated and variable are the relationships between harvesting of wild animals and their use in livelihoods—and how this can vary by political, social, and ecological contexts. Examples of this include the importance of the agricultural matrix for supplying game in some settings, the vital relationship between fish consumption and wild mammal consumption, the biases that just sampling markets can provide, the fact that the harvest is in some cases vital for food, and in others for income, and the difference between bushmeat as a luxury in some settings and as a starvation food in others.

As someone who has been an interested bystander over the last decades, I found this book both useful and frustrating. The editors have assembled many of the best people who have been working on the question for the last decade and the chapters provide a richness of information and perspective. However, there has been a great deal published on the issues relevant to both harvest of wild animals and alleviating of poverty in

recent years and this volume cannot, and does not, attempt to educate the reader on many of the wider issues. The usual malady of edited volumes afflicts this book, with some chapters specific to the point of narrowness and others overarching to the point of dizziness. Additionally, the non-African contributions sit uncomfortably with the rest of the chapters.

The introduction by the editors, and the short pieces that begin each section provide valuable context to the contributions. However, there is no overall synthesis that would allow the reader to understand how the set of rich case material and analysis can, in fact, integrate the perspectives of both development and conservation—as laid out by the editors as the purpose of the book. A final, synthetic chapter would have been welcome.

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Mountain Goats: Ecology, Behavior and Conservation of an Alpine Ungulate

by Marco Festa-Bianchet and Steeve D. Côté (2007), xii + 265 pp., Island Press, Washington, DC, USA. ISBN 978159726170X (hbk), USD 90.00; 9781597261715 (pbk), USD 45.00.

Studies of mountain ungulates are relatively few compared to those on, for instance, deer and antelopes. The reasons lie largely in the combination of rugged terrain, severe climate, high altitude and/or latitude and difficult access, all of which complicate logistics, increase funding needs and demand high levels of effort to complete periods of field work. These issues have been successfully overcome in this welcome study, the first to deal in-depth with the North American mountain goat *Oreamnos americanus* (a rupicaprin, related to chamois, serow and goral, rather than a member of the genus *Capra*).

The authors, Festa-Bianchet, Chair of the IUCN/SSC Caprinae Specialist Group, and collaborator Côté, report the findings from the first 16 years of ongoing research carried out on Caw Ridge in Alberta, Canada. The two significant features of this study are its long-term nature and the reliance on

marked individuals for data collection. It is one of only a few comparable studies on mountain ungulates and the first one carried out on a population in an area where the full suite of natural predators remains present.

The book is written in a clear style and is divided into 13 chapters. The first three introduce the background and aims, and describe the study area and methods used. The latter section candidly details the unexpected negative effects of capture and chemical immobilization on mountain goats and subsequent changes to the methodology. Eight chapters then detail the scientific results. Topics covered include reproduction, body and horn growth, population dynamics, predation, mortality, home range size, survival and dispersal, and population regulation. Each of these chapters has a short introduction and is followed by a concise, bullet-pointed summary of the main findings. Readability is further enhanced by grouping the results of statistical tests together at the end of each chapter. Chapter 12 draws conclusions from the results for management and conservation, particularly on harvest levels for trophy hunting programmes, providing an important applied focus. The final chapter summarises the benefits of long-term monitoring of marked individual animals and advances in ecology and conservation, and points the way to the future. The benefits of such long-term studies using marked individuals are convincingly expounded by the authors and are

difficult to argue with. As the authors point out, the processes affecting population dynamics develop over many years and cannot be understood without monitoring over a comparable time scale, while variations among individuals can only be understood if those individuals can be recognized and followed over the long-term.

The results are a rich source of data and insights on mountain goats, with many lessons for other mountain ungulate studies. The main limitation is that the data relate only to the 4-month long summer period: severe cold, short daylight hours and deep snow in the study area presented logistical challenges too great even for this otherwise indefatigable team, although the current phase of the study is starting to rectify this aspect of the research. Nonetheless, this remains an impressive study, of interest to all those concerned with mountain ungulate and wider ungulate studies. One can only admire the determination and ingenuity employed to achieve these results and welcome the enlightened attitude of their main funding sources, who demonstrate a welcome contrast to the short-termism and early 'project fatigue' shown by many donors.

The book also integrates conclusions from comparable long-term studies on mountain ungulates—all conducted so far in North America and Europe. Perhaps a further benefit of this book will be to stimulate similar studies in Asia, where so many little-studied mountain ungulate taxa are distributed.

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The following titles have been received by the Editorial Office that may be of interest to readers:

Plants and Climate Change: Which Future?

Belinda Hawkins, Suzanne Sharrock and Kay Havens (2008), 96 pp., Botanic Gardens Conservation International, Richmond, UK. ISBN 9781905164264 (pbk), GBP 10.00.

River Futures: An Integrative Scientific Approach to River Repair

edited by Gary J. Brierley and Kirstie A. Fryirs (2008), xvii + 304 pp., Island Press, Washington, DC, USA. ISBN 9781597261128 (hbk), USD 80.00; ISBN 9781597261135 (pbk), USD 40.00.

Ivory Markets in the USA

by Esmond Martin and Daniel Stiles (2008), 120 pp., Care for the Wild International, Kingsfold, UK, and Save the Elephants, London, UK. ISBN 9966968350 (pbk), unpriced.

Noninvasive Survey Methods for Carnivores

edited by Robert A. Long, Paula MacKay, William J. Zielinski and Justina C. Ray (2008), 385 pp., Island Press, Washington, DC, USA. ISBN 9781597261197 (hbk), USD 90.00; ISBN 9781597261203 (pbk), USD 45.00.