BioOne COMPLETE

Debating Shifting Cultivation in the Eastern Himalayas

Author: Shiel, Robert S.

Source: Mountain Research and Development, 27(3) : 290-291

Published By: International Mountain Society

URL: https://doi.org/10.1659/mrd.mm017a

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

Downloaded From: https://bioone.org/journals/Mountain-Research-and-Development on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

Books

Ecology and Conservation of Neotropical Montane Oak Forests

Edited by Maarten Kappelle. Berlin, Germany: Springer, 2006. xxxiii + 483pp. US$205.00, €159.95. ISBN 3-540-28908-9.

This book is Volume 185 in the long line of the Ecological Studies series published by Springer—these familiar green books found in many research university libraries. Maarten Kappelle, the editor, has done a wonderful job of bringing together various researchers and practitioners to compile a comprehensive and up-to-date look at an often overlooked tropical forest region. He was obviously the right person for the job as his passion and career involve the neotropical montane region. As a person unfamiliar with this region, I found myself fascinated with the collaboration of numerous authors and the breadth and depth of work regarding these oak (*Quercus* spp.) ecosystems. The holistic approach used in this book, ranging from trees and herbaceous plants to fungi and bryophytes, and from large and small wildlife to ecosystem functions and services, is the envy of future attempts worldwide to so exhaustively cover a specific region. I learned a lot about tropical oak ecosystems that could be useful in better understanding our temperate oak ecosystems.

The book has 34 chapters divided into 7 sections. Each chapter is short and concise, allowing for a maximum number of contributions. Many summarize research conducted by individual authors within specific ecosystems in the neotropical montane oak region or provide original research, including methods and analyses. Section I (1 chapter) introduces readers to neotropical montane oak forests, primarily through the taxonomy and distribution of the various oak species found in the region. Section II (6 chapters) synthesizes the paleoecology and biogeographic information from the region, including oak species migration patterns and studies on the distributions and ecology of fungi, lichens, and bryophytes. Section III (4 chapters) describes oak stand compositions and structures ranging from central and eastern Mexico to Colombia, which represent the northern and southern boundaries of neotropical montane oak forests, respectively. Section IV (4 chapters) reviews the population dynamics of oak reproduction, small mammals, and understorey plant species. Section V (12 chapters) describes ecosystem dynamics, including disturbance, succession, regeneration, and wildlife. Section VI (5 chapters) revolves around the theme of conservation and sustainable use. Finally, Section VII (1 chapter) synthesizes the findings from the previous 33 chapters, and concludes with a discussion of ecosystem recovery and conservation. A wealth of citations is provided at the end of each chapter, many in Spanish.

Essentially, this book summarizes current knowledge about neotropical montane oak ecosystems. These ecosystems are less studied than the lowland neotropical and tropical forests around the world. The neotropical montane oak forests from central and southern Mexico to northern South America represent a transition from true temperate forest ecosystems to the north and the tropical forest ecosystems to the south; therefore, they contain species mixtures representative of both temperate and tropical forests.

One shortcoming, especially for those unfamiliar with the region, is the lack of an introductory chapter describing the neotropical montane oak region in general, including a map of the various countries and major cities, broad vegetation types, and distribution of oaks in the region (such as Figure 34.1 in Chapter 34). A table listing the various oak species found in the neotropical montane region, along with common names and various silvical characteristics, would also be helpful. Other chapters provide impressive lists of biodiversity, including fungi (Chapter 5), lichens (Chapter 6), and bryophytes (Chapter 7).

As a silviculturist, I would have preferred more information on proven silvicultural techniques in the management of these forested ecosystems. Several chapters conclude with broad recommendations for ecosystem restoration, primarily through planting various tree species. Chapter 28 is the first to address explicit use of silviculture, giving recommendations depending on floristic formation and site conditions. The shelterwood regeneration method is recommended for xeric forests, while the selection method is recommended for mesic forests. Given the difficulties we face with the selection method for temperate oak forests, I am hesitant to follow recommendations regarding uneven-aged regeneration methods that use "selective" felling of mature trees above a specified minimum diameter without knowledge of the long-term effects on the regeneration dynamics of the harvested species. Often, these long-term effects involve a shifting of species composition to more shade-tolerant species.

It was apparent throughout this book that there is still much research to be conducted. I wondered how these pure and mixed-species oak stands initiated. Given that oaks in many of the temperate forests follow some sort of major disturbance, what role does disturbance play in the establishment and development of these oak forests? Figure 17.1 (Chapter 17) provides an excellent conceptual model of successional development following disturbance for oak–bamboo forests

Downloaded From: https://bioone.org/journals/Mountain-Research-and-Development on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

in Costa Rica. Additional information along these lines will be needed before hypotheses regarding silvicultural practices can be tested. Simply put, more information is needed on disturbance patterns and stand development pathways in neotropical montane oak forests before site- and stand-specific silvicultural recommendations can be made.

There are several typographical errors and data presentation inconsistencies. For example, basal area values in Table 8.2 (Chapter 8) are listed in m^2/ha, while basal area values in Chapter 9 are listed in cm^2 and summarized to m^2 at the plot level, requiring the reader to calculate per hectare values for comparison with other chapters. Finally, as one who became quite fascinated with this region, the further I read through the book, the more photographs I would have liked to see. It should be noted that many of the chapters present up-to-date knowledge and the authors explicitly point out the need for more information. The lack of published information on many aspects of the ecology and management of neotropical montane oak forests presents opportunities for future research.

This book will be of great value to managers, researchers, teachers, and students who work in the Americas neotropical montane region. It also will be valuable to ecologists, forest managers, and researchers throughout the world as a means of synthesizing current knowledge regarding the ecology and conservation—including social, economic, and cultural issues—of a forested region. Unfortunately, the cost of the book will be prohibitive to many.

Brian Roy Lockhart
USDA Forest Service Southern Research Station, Center for Bottomland Hardwoods Research,
PO Box 227, Stoneville, MS 38776, USA.
blockhart@fs.fed.us

doi:10.1659/mrd.mm016

New Horizons in Tourism: Strange Experiences and Stranger Practices

Edited by T.V. Singh. Wallingford, United Kingdom: CABI Publishing, 2004. xv + 221 pp. US$90.
ISBN 0-85199-863-1.

It is very likely an understatement to say that this book provides an "interesting" collection of chapters, yet this is probably the best way to sum up, in one word, a somewhat eclectic collection where the common theme is not always obvious. Nevertheless, the editor should be congratulated for bringing together such a large number of contributors to produce a well-written book. This is perhaps the absolute strength of the book—the fact that it has been possible to draw together 24 international academics, researchers, and industry professionals to produce 14 high-quality chapters. The book is divided into 5 broad sections, each containing chapters written by established tourism and recreation researchers. Although the style and quality of writing is high throughout, the language is not particularly accessible, especially to readers whose first language is not English. This is a fact worth noting, given that most of the case studies are from non-English speaking parts of the world. The frequent use of academic jargon and concepts also makes the book difficult to access for those who do not have an advanced understanding of tourism and recreation research.

The theoretical and conceptual approach taken in many contributions may be one possible reason why these chapters are not easy to digest. I would have preferred a much more concerted effort to structure them around empirical research, as this could have broadened the book's appeal to include professionals and managers in the tourism and heritage interpretation industry, rather than focusing exclusively on an academic audience.

Although I have some reservations as to the relevance of several topics addressed in the book, I can nevertheless see how these chapters contribute to its overall theme of strange experiences and stranger practices. In order to give potential readers with a specific interest in mountain areas a better understanding of these criticisms, I have focused specifically on the first and fourth sections of the book: "The edge of tourism," and "Tourism for the poor, the old and humankind."

The first section focuses on tourist experiences that are available only to a very small and elite group of travelers—for instance, space tourism (Laing and Crouch), Antarctic travel (Splettsoesser et al), and skilled commercial adventure (Buckley). It would have been interesting to see a more comprehensive investigation into experiences and motivations of tourists who have been able to access these forms of travel, since this could have stimulated innovation within related, but less exclusive tourism activities. This is particularly true for Buckley's contribution on skilled commercial adventure, which focuses on the type of adventure tourism that has a specific relevance to mountain regions: whitewater kayaking, skiing, snowboarding, climbing, and exploration. The chapter provides an interesting discussion of how this type of tourism can assist in the development of local tourism. One example describes how tour operators in Nepal have added whitewater rafting to their traditional trekking and mountaineering products. Buckley highlights some of the continuing tensions that have emerged as a result of these developments in relation to indigenous societies and the preservation of their specific cultural heritage.

Singh, Chauhan and Singh develop this issue further in their chapter entitled "Tourism trespasses

Downloaded From: https://bioone.org/journals/Mountain-Research-and-Development on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

on the Himalayan heritage." Examining the presence of tourism in the Kulu Valley in the Indian Himalaya, they argue that the gradual opening up of communities that were previously isolated from the outside world and Western influences in particular, is rapidly eroding the natural and social capital that had attracted tourists in the first place. The authors discuss the needs for community involvement and ownership of development processes, using the example of the so-called hermit village of Malana to illustrate how a small mountain community is thus far managing to benefit from tourism whilst retaining its distinct cultural heritage. One of the questions raised in this chapter is whether or not tourism can ever become anything but a vehicle for Westernization.

The fourth section covers the growing topic of pro-poor tourism and is of great relevance to many communities in mountain regions, particularly in the developing world. The chapter on "Volunteer tourism: New pilgrimages to the Himalayas" by Singh and Singh relates to some of the issues raised in the chapter mentioned above, looking at how developments in tourism can have a negative impact on the socioeconomic and cultural heritage in the Himalayas. However, the tone and focus of this chapter is much more positive as it examines two volunteer tourism case studies: the Krishna Temple Society's Ananda Project and the Rural Organization for Social Elevation (ROSE; formerly Kormanchal Seva Sansthan or KSS) project. Whilst both projects are reported as a success for locals as well as visitors, the authors note that insufficient understanding of the context through people, place, and processes has led to a certain degree of incompatibility between volunteers and hosts. Arguably this is because the role of interpretation in providing access to remote parts of our global heritage is merely hinted at and not properly discussed or applied. However, this is a criticism that applies to the entire book and not just to this particular chapter.

In conclusion, I would recommend this book as a reference work to anyone with an interest in the development of niche tourism markets in mountain regions.

Tomas Nilsson
Perth College, UHI Millennium Institute, Crieff Road, Perth, PH1 2NX, United Kingdom.
tomas.nilsson@perth.uhi.ac.uk

doi:10.1659/mrd.mm017

Debating Shifting Cultivation in the Eastern Himalayas

Compiled by Elisabeth Kerkhoff and Eklabya Sharma. Kathmandu, Nepal: ICIMOD, 2006. x + 92 pp. US$15 (developed countries), US$10 (developing countries), US$7.50 (ICIMOD member countries). ISBN 92-115-009-6.

The Shillong Declaration on Shifting Cultivation (SC), presented in this volume, has already resulted in policy revisions by government organizations within the eastern Himalayas, the region under consideration. The Declaration itself takes up only 2 of the 92 pages. The remainder of the book, based on a workshop in October 2004, sets the scene by explaining the widespread negative "official" attitude to SC and the exploitation of land by external opportunists; it then examines the actuality of the system and the ecological, hydrological, social, economic, and environmental benefits that it can provide.

The volume has its highs and lows. The Foreword by Gabriel Campbell is an excellent statement on the topic, brief and to the point, while the Executive Summary that follows seems to have been written by a committee of politicians with the collective intention of saying nothing definite. The following introductory chapter describes the area covered by the book, as well as the system of SC and attitudes to it; sadly, this repeats much of what Campbell states so succinctly, without adding greatly to it. The next 3 chapters examine conservation, biodiversity, and novel commercial species within SC, but no data are presented to back up their assertions. While primary sources are quoted, these are few, and the volume begins to suffer from the problem of Sir Albert Howard's *Agricultural Testament* (Howard 1940): you have to believe what you are being told. In the case of the *Testament*, the resulting cynical view—which remains in many scientists' minds to date—led to Sir Albert's second wife writing *Sir Albert Howard in India* (Howard 1953) to provide an explicit link to the field experimentation from which the views expressed in the *Testament* arose. Many of the sources quoted here are in volumes that may not be easy to access, and one could have wished for rather fewer photographs and more tables.

The point is made early on about the low level of cash income of many of the cultivators—an attitude widely used by urban salarymen to belittle shifting cultivators as marginal figures in deepest poverty. The lie to this attitude is clearly stated in Chapter 5, which examines the social security system embedded within SC. This chapter is a valuable contribution and shows how the SC system can work to prevent the development of the genuinely impoverished and ill-nourished underclass seen in cash-cropping areas and urban centers. One problem that is widespread in considering "value" rather than cash is how to apportion a price to diversity, air quality, clean water, a healthy diet, and lack of disease. It is to be remembered that it was in a similar upland area in the

Downloaded From: https://bioone.org/journals/Mountain-Research-and-Development on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

Himalayas that Sir Robert McCarrison noted the exceptional health and longevity of the Hunza people, and contrasted them with the disease of those on the plains in India (McCarrison 1953). Although the volume is targeted at a specific area and system, some of the volumes of longer standing, such as the *The Soil Under Shifting Cultivation* (Nye and Greenland 1960), could have been referenced. This volume may have depressed undergraduates with its detail and extensive bibliography, but readers are left in no doubt about the quantification. It is interesting to note that there still is an almost apologetic attitude to SC; nowhere is its similarity to rotational farming with a grass break mentioned. The monocultures of the West, which originated with fertilizer and pesticides, have reverted—usually because of soil deterioration, water quality reduction, or loss of diversity—to the traditional rotation of crops with grass, often containing a nitrogen fixer; the only distinction from SC is the length of the break and the size of some of the plants. In fact, western governments have coerced their farmers into adopting set-aside—basically a fallow—sometimes of considerable duration.

This book has its shortcomings, but for anyone interested in this widespread system of management it provides a good, if at times over-generalized, introduction. It offers a list of source material and organizations involved in SC. The "Outlook" chapter indicates what one really wants to see—the uptake of the Shillong Declaration by government organizations. Sadly, the weasel words are there: "welcomed the new perspective," "set up a task force." It is to be hoped that pressure will prevent the self-interested and self-promoting from stymieing the prospects for improvement presented in this volume.

REFERENCES

Howard A. 1940. *An Agricultural Testament.* Oxford, United Kingdom: Oxford University Press.
Howard LE. 1953. *Sir Albert Howard in India.* London, United Kingdom: Faber and Faber.
McCarrison R. 1953. *Nutrition and National Health: Being the Cantor Lectures Delivered Before the Royal Society of Arts 1936.* London, United Kingdom: Faber and Faber.
Nye DH, Greenland DJ. 1960. *The Soil Under Shifting Cultivation.* Harpenden, United Kingdom: Commonwealth Agriculture Bureau.

Robert S. Shiel
School of Agriculture, Food and Rural Development, Newcastle University, Newcastle upon Tyne, NE1 7RU, United Kingdom.
R.S.Shiel@newcastle.ac.uk

doi:10.1659/mrd.mm017

Dairy Farming in Mountain Areas

By Vir Singh and Babita Bohra. Delhi, India: Daya Publishing House, 2006. xix + 191 pp. Rs 500. ISBN 81-7035-437-4.

Integrated farming (agricultural land, crops, farm animals, forests/trees/grasses, water, and rural industry/market) is the main source of living for most mountain people in the Himalayas. Farm animals play key roles in generating both income and employment for mountain communities. As primary users of biomass from forests, trees, grasses, and crop residues, farm animals help to recycle energy and nutrients from forest and rangelands to cropland and vice versa, thereby contributing to maintaining these ecosystems.

In recent decades, smallholder dairy farming has gained importance for the mountain economy. This publication attempts to analyze and describe key features of mountain dairy farming, with examples from Indian districts of the Himalayas. It covers a wide range of topics, including livestock population and composition, feeds and feeding management, and health management. It is organized in 11 chapters, beginning with a general introduction. Chapter 2 reviews interventions for dairy development in different periodic plan periods, with some case studies. Chapters 3 and 4 provide information on dairy development indicators and livestock population, composition, and dynamics. The next 3 chapters include information related to feeds and feeding management, dairy breeds and breeding management, and health management. Chapter 8 analyzes milk production, milk marketing and milk consumption patterns, and Chapter 9 highlights some constraints facing dairy farming in the Hindu Kush–Himalaya region. Chapter 10 is devoted to a case study of livestock in high pressure peri-urban areas in the central Himalayas. The final chapter looks at smallholder dairy farming and approaches to sustainability.

This publication provides general information on livestock population and composition and their importance in mountain farming systems, as well as on aspects of dairy farming and the market for dairy products. The authors could have done a little more, especially in terms of analyzing and presenting socioeconomic aspects of dairy-farming communities. For example, information on livestock population and composition trends for different time periods (Chapter 4) could have been usefully complemented by trends in other socioeconomic variables (eg demographic changes including out-migration to cities, increased numbers of children attending schools, shortage of household labor for agricultural activities), and the livestock numbers in Chapter 10 could have been presented in Cow Units. There is no explanation for the recorded decline of the cattle population or the increase in the populations of some other farm animals.

Likewise, for the case study in Chapter 10, information on trends in livestock population (numbers

Downloaded From: https://bioone.org/journals/Mountain-Research-and-Development on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

and composition) over different periods of time would have been useful and could have helped to make the link to information provided in Chapter 4. More importantly, in Chapter 10, information on milk production, consumption, and marketing at both household and village levels could have been taken further, to show the contributions of dairy farming to overall household and village economies (both income and employment).

There is a need to view the impact of the dairy market and cooperatives in terms of the extent to which these have benefited poorer household members—especially smallholders, landless livestock-owning households, and women and other disadvantaged family members. This is particularly important in view of the agricultural labor shortages arising from the increased out-migration of rural people (mostly male) to cities for off-farm employment, and more children attending schools.

Finally, given the importance of access to public forests and grazing lands for livestock rearing, it is a must to look at policy interventions, such as joint forest management, and how such policies have had impacts (positive and negative) on dairy farming communities, especially small landholders and landless livestock owners.

However, despite these few gaps the book should be seen as a useful contribution to our knowledge on dairy farming and livestock husbandry. It will be of interest to students and professionals associated with this discipline, as well as to people interested in the development of mountain regions in general and the Hindu Kush–Himalaya in particular.

Yam Malla
Regional Community Forestry Training Center for Asia and the Pacific (RECOFTC), Kasetsart University, Bangkok 10903, Thailand.
oyam@recoftc.org

doi:10.1659/mrd.mm018

MRD Editorial Office is moving to new premises!

Our new address valid as of 15 September 2007 is the following:

Mountain Research and Development (MRD)
Editorial Office
Centre for Development and Environment
Institute of Geography, University of Berne
Hallerstrasse 10
3012 Berne, Switzerland

In addition, there will be a slight modification to our E-mail addresses. The domain name will change from @giub.unibe.ch to @cde.unibe.ch, resulting in the following addresses:

mrd-journal@cde.unibe.ch (Managing Editor)
mrd-info@cde.unibe.ch (Editorial Assistants)

Thank you for taking note of these changes!

Downloaded From: https://bioone.org/journals/Mountain-Research-and-Development on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use