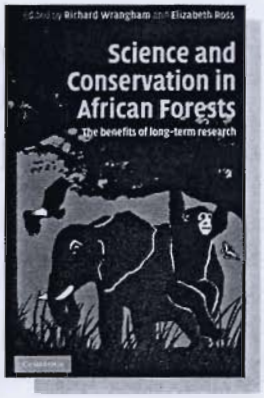
Bulletin of the British Ecological Society (December 2009) 40 (4): 73-74.

Publishing News and Reviews



Science and Conservation in African Forests: The Benefits of Long-term Research

Edited by Richard Wrangham & Elizabeth Ross (2008) Cambridge University Press, Cambridge.
£65.00 (hbk)

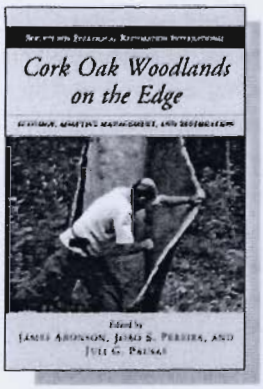
ISBN 978-0-521-89601-6

£27.99 (pbk)

ISBN 978-0-521-72058-8

Conservation projects often benefit from having a focus organism that can fire the imagination and enthusiasm of grant-awarding agencies and the general public. In the case of the African forests, there are the great apes. Increasing habitat loss and disturbance, combined with the intensification of hunting for bushmeat, led to the establishment of a range of protection agencies, and this book celebrates the 20th anniversary of the founding of the Kibale Chimpanzee Project in Uganda. The emphasis of the book, therefore, is upon research based in Kibale National Park, and is particularly concerned with the outcome of long-term research and monitoring projects from the region. Permanent field stations have been established, law enforcement has been enhanced, collaboration with overseas organizations have improved, education and training of national staff has expanded, and management plans have been devised and activated. It is clear from the accounts collected here that the focus on chimpanzees has resulted in benefits for many other animals, and for the habitat as a whole. Areas of the forest once logged and converted to agriculture have been abandoned by farmers as a consequence of rinderpest. Often such areas had been planted with non-native pines, but subsequent harvesting and natural regeneration has provided improved habitat for a variety of species besides the chimps, including red colobus monkeys. Studies of disease among primates is proving important both in terms of assessing the impact of outbreaks on the primates themselves, and also their possible consequences for human populations. For the last five years a Kibale Eco-Health programme has concentrated on the epidemiology of primate diseases and their relationships to the health of humans and domestic animals. The education of local people, and the financial benefits of ecotourism are important areas of development, and the basic research carried out in Kibale is increasingly being applied to the expansion of these activities. The best known primate work in Uganda, of course, is the research being conducted on the mountain gorillas of the Virunga National Park, which is also reported here. The accounts collated in this book, together with the brief accounts of similar projects in Tanzania, Ivory Coast, and Guinea, is encouraging, not only for the survival of the great apes, but the many other organisms that share their habitat.

Peter Moore



Cork Oak Woodlands on the Edge: Ecology, Adaptive Management, and Restoration

Edited by James Aronson, Joao Pereira & Juli Pausas (2009) Island Press, Washington, DC.
$80.00 (hbk)

ISBN 978-1-59726-478-5

$40.00 (pbk)

ISBN 978-1-59726-479-2

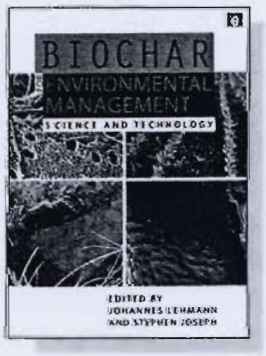
A topical subject for a number of years now as the end of the Mediterranean cork oak woodlands is heralded due to, amongst other threats, the increasing numbers of synthetic corks and screw caps on our wine bottles. The aim of this book is to look at what we know of the ecology of the cork oak (*Quercus suber*) and its woodlands, how they have been utilized by people in the past which hopefully gives a clue as to how they might be successfully managed in the future – successfully defined in terms of biodiversity and economics.

The first section on the oak and its woodlands includes a lot of detail some of which is useful primarily to ecologists (such as how the cork is produced and the self incompatibility mechanisms that encourage cross-pollination) and others more useful to the manager (genetic variability around the eastern Mediterranean and its implications for conservation).

The second and third sections expand on this theme looking at how the interaction of the cork oak with drought, soils and mycorrhizae, pests and diseases affect natural regeneration and cork oak establishment. The remainder of the book delves into the economics of cork oak woodlands including other ecosystem services (such as the excellent black pig ham) and how the cork industry has diversified to exploit new markets. The final section puts all this together to consider what the future might hold in the face of climate change and ecoregional planning. The message of the book is that these woodlands have a lot to offer in terms of useful products and biodiversity conservation but abandonment of some areas and over-exploitation of others is leading to increasing fragmentation and gradual loss.

Though this is an edited volume the editors have done a superb job of linking the chapters together (through many cross-references and summaries preceding each section of the book) and of maintaining a common style and depth across the chapters. Nevertheless, there are some holes that will require further reading elsewhere. For example, the demise of the cork industry is documented in two chapters and although the benefits of using cork stoppers are highlighted (a lower environmental impact than using aluminium lids or synthetic corks) the reasons for the switch away from cork is passed over. Corks can shrink allowing oxidation of the wine, but the most important problem is 'cork taint' primarily due to TCA (2,4,6 trichloroanisole) produced by fungal action. The book also suffers from a surprising number of quoted references missing from the extensive list at the back. Nevertheless, overall this book provides a good insight into the pressures on these woodlands and the underlying ecology.

Peter Thomas



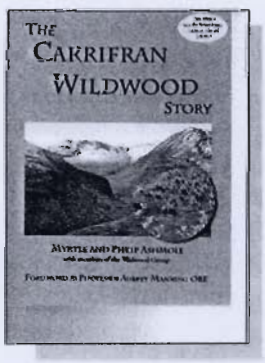
Biochar for Environmental Management

Edited by Johannes Lehmann & Stephen Joseph (2009) Earthscan, London. £49.95 (hbk)

ISBN 978-1-84407-658-1

The Amerindians of Amazonia incorporated charred plant material and other substances into the soil creating areas of Dark Earth or Terra Preta soils which have persisted for thousands of years. These additions helped maintain the quality of the soils in slash and burn clearings which, as we know today, otherwise very rapidly lost their fertility. This ancient knowledge could, the editors argue, be of great benefit to us today. The contributions lay out the evidence that biochar (charcoal in common parlance – the carbon-rich product produced when biomass is heated with little or no available oxygen) can be cheaply and easily used to improve agriculture through its impact on soil structure and nutrient-retention. It is also argued that since biochar is structurally stable over the long-term it could play a substantial role in carbon sequestration. So much so that Lehmann (2007 Nature, 447, 143-144) estimated that creating biochar in the USA from forestry waste, growth on fallow farm fields and annual crops could compensate for around a third of the fossil-fuel emissions of the country. The book takes the reader through the physical and chemical properties of biochar, how it has historically been produced and modern methods, what it does in the soil, and finally a thesis on the energy, economic and ecological benefits of biochar systems. A real eye-opener of a book that make fascinating reading.

Peter Thomas



The Carrifran Wildwood Story

Myrtle Asmole & Philip Ashmole (2009) Borders Forest Trust, Ancrum, Jedburgh, TD8 6TU (available only from the publishers -www.bordersforesttrust.org). £15.00 (pbk) plus £5 p&p

ISBN 978-0-9534346-4-0

Justifiably shortlisted for the Robin Jenkins Literary Award 2008/09, this book is about the fundamentals and practicalities of nature conservation. In 1993 a group of friends determined to restore the natural vegetation of a former wild forest in the southern uplands of Scotland, at Carrifran (from Caer-y-fran, crag, fort or seat of ravens). And so they did, and in the pages of this book we are taken through the agonies, frustrations, disappointments,