

# Publications

## A Journey in Landscape Restoration:

**Carrifan Wildwood and Beyond** edited by Philip & Myrtle Ashmole (2020) 240 pp., Whittles Publishing, Dunbeath, Caithness, UK. ISBN 978-184995-472-3 (pbk), GBP 18.99.

Rewilding is a buzzword in conservation. The thinking is that if we reintroduce keystone species such as the beaver, lynx, bear and wolf (in the UK), they will function as ecosystem engineers, making the environment suitable not just for themselves but for other species, too. Reintroducing such extirpated species is thought to aid sustainability as we will no longer have to manage nature, because it will manage itself. One major obstacle to this approach is that in the UK most land is used for agriculture and, for obvious reasons, landowners with grazing animals tend to object to the reintroduction of large predators such as the wolf.

*A Journey in Landscape Restoration: Carrifan Wildwood and Beyond* studiously avoids the term ‘rewilding’ and instead prefers ‘landscape restoration’. Scotland has been at the forefront of large-scale ecological restoration in Europe, at least in theory if not in practice (e.g. Brown et al., 2011, *Scottish Geographical Journal*, 127, 288–314). This book describes how a single valley is being returned to its natural state and serves as a guide on how the lessons learnt could be applied more widely. Around 20 years ago, Carrifan was a typical, over-grazed valley in the southern uplands of Scotland, until it was acquired by the Borders Trust, a charity aiming to restore the region’s natural landscapes. The book describes the journey of Carrifan’s restoration, in three parts: an introduction, a description of the changes observed as a result of restoration actions, and lessons learnt and how these could be applied elsewhere, particularly in southern Scotland.

The first part comprises a short section on the project’s beginnings, followed by a detailed description of how nature changed over the following 20 years. To restore the Carrifan landscape, sheep grazing was gradually removed and more than 650,000 native trees and shrubs were planted. This led to a recovery of native vegetation, with upland heath and tall herbs recolonizing the area, woodland plants spreading and species new to the valley being recorded. Quantitative surveys showed a shift from an avian community dominated by species adapted to open countryside, particularly the meadow pipit, to a more diverse array of species, including woodland birds. The following chapters deal with changes to vegetation communities, and taxa such as higher plants, bryophytes, fungi and invertebrates. The final section reflects on how the

experiences at Carrifan can be applied elsewhere. The authors emphasize how involving the local community, and the community of naturalists and scientists, has been key to the success of the project. Buoyed by the experience at Carrifan, the Borders Trust has since acquired other sites in the region and is taking a landscape-scale approach to joining up sites owned or managed by the Trust and other conservation organizations.

This is not an academic book; only a single chapter contains references. Chapters are kept short, and each is authored by different people involved in the project. The book is well written and amply illustrated with high quality photographs. The few maps and graphs are clear and readily understandable by the lay reader, and boxes are used to good effect for explanation, without disrupting the flow of the main text. The book may have benefited from being pitched more at the informed naturalist, with up to half a dozen readily accessible references per chapter, although this is a minor point. The introduction mentioned that a pollen analysis was conducted in the valley, and a summary pollen diagram would have been useful to show how it informed the selection of trees for planting (if it did).

The underlying premise—to take an over-grazed upland valley, remove the sheep, plant trees and monitor what happens—seems straightforward. However, as the book makes clear, it is more complex than this. In addition to acquiring the land itself, you need volunteers who have the time, energy and expertise to plant thousands of trees, erect fences and monitor changes over long periods, and in rough terrain. An additional challenge is posed by unwanted grazers such as roe and sika deer, in the absence of apex predators to control them. The success of Carrifan is testament to the vision and leadership of both Philip and Myrtle Ashmole, but this project would not have achieved its goals without the energy and perseverance of volunteers, and the involvement of naturalists, scientists and the local community.

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**Around the World in 80 Plants** by Jonathan Drori (2021) 216 pp., Laurence King Publishing Ltd, London, UK. ISBN 978-1-786272300 (hbk), GBP 20.00.

My fascination with the plant kingdom began when I was a child, whilst researching rainforests for a school project. I was awed by the

giant rafflesia flowers of South-east Asia and the valuable kapok trees of the Americas. Imagine my hurry, then, to find out which plants were included in Jonathan Drori’s latest dive into the planet’s flora: *Around the World in 80 Plants*, a follow-up to his popular exploration of trees. Scanning down the contents, my head nodded in delight at spotting some favourites, although I also regretted the absence of others, before remembering that this collection could cover less than one-tenth of a per cent of the 350,000 species of vascular plants that have been described, with more added each year.

Structured by continent, this book guides the reader around the world, dipping into the stories of the tiny, the towering, the parasitic and the submarine. Starting this journey with the common stinging nettle might seem like an underwhelming choice, but right away the reader learns of the surprising and complex ecological strategies and rich history surrounding this humble plant. Across each continent, this theme continues, with the previously mundane or familiar species often revealing the most memorable stories. Just looking around my kitchen, I can now tell you there are over 120 different species of coffee, that a banana will glow pale blue under ultraviolet light and that nutmeg may have inspired a well-known pepper-picking tongue twister.

With the history and culture surrounding so many plants interwoven and entangled across continents, the reader is not taken on a linear path across the globe. There is some back and forth as we learn that tulips, which so many associate with the Netherlands, actually originate from the mountainsides of Central Asia, and that vanilla, although native to Central America, is mostly cultivated in Madagascar, where the flowers are painstakingly hand-pollinated every day. We also read of the terrible consequences that transporting plants to new places can bring, through the stories of the prickly pear and water hyacinth.

Helping to paint the picture of not just what each plant looks like, but how it is used, where it sits in the landscape and how it interacts with wildlife, are Lucille Clerc’s beautiful illustrations. From the unfurling leaves of the silver tree fern to the colours and impossible shapes of some unique and strange-looking orchids, these drawings add yet another layer of delight.

Scattered among the great and the good of the plant kingdom are notes of warning: of how we cannot continue to ferociously harvest the remaining one per cent of the world’s carbon-rich peat bogs, of how soybean and oil palm super crops can devastate ecosystems if not managed sustainably, and of how a failure to recognize the interdependencies of

plants and their environments could spell disaster for the carefully evolved natural systems we so often take for granted. We are reminded, however, of the hope and opportunities that plants bring to help us solve the world's most pressing challenges. Those 120 species of coffee could improve resilience to climate change within cultivated strains, dandelions might be an unexpected, sustainable source of rubber, and the leaf structure of the lotus is already inspiring the development of self-cleaning, and therefore more eco-friendly, materials.

As with much of the natural world, the more one learns about the individual plant species and the stories that tell of our interactions with them—whether positive or negative—the more intriguing they become. *Around the World in 80 Plants* makes me want to find out yet more about the plants that are so often overlooked as a green background, or seen merely as scenery to frame the animals, yet are vital for supporting life on Earth. As this book so wonderfully shows, they are more than life-support machines: they provide colour, flavour and magic to our everyday lives, and we need to learn to appreciate them.

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**Hats—A Very UNnatural History** by  
Malcolm Smith (2020) 194 pp., Michigan State  
University Press, East Lansing, USA. ISBN  
978-1611863475 (hbk), USD 44.95.

'For such simple garments hats have had a devastating impact on wildlife', so reads the first sentence on the inside cover of this fascinating book, which I found to be an emotional roller coaster. The first few chapters chart, in careful detail, the pattern of a rapidly increasing and insatiable demand for fur and feathers, decimating wildlife around the globe. Some of the facts and figures in the

documentation of these boom-and-bust industries beggar belief. For example, a total of 139,509 beaver pelts were exported from what is now Canada in one year (1787), 509 kg of ostrich feathers were imported to France in 1807, and a report tells of one London dealer warning he would no longer accept birds from New Zealand because he already had 385 of, the now Critically Endangered, kakapo. Although the author is careful not to attribute the subsequent catastrophic declines of the targeted species entirely to our demand for décor, it clearly played a central role. Thus, great crested grebes in Britain, whose ear frills were much sought after for ladies' hats, were almost hunted to extinction in the 19th century, ditto sea otters in the Arctic and beavers in North America. Added to the environmental tragedy was often a human and societal one. As the quarry became rare and prices increased, competition and conflict followed between trappers and Indigenous people, for example during the brutal North American beaver wars of the 1600s.

The author adds colour to the beautifully crafted text through quotes from other books, journals, expeditions and auction rooms. There are also glimpses into how the biology of a species made them more or less vulnerable to exploitation. Snowy egrets breed in huge colonies and this, combined with a showy display, made the males easy targets for mass harvesting. In contrast, flamingo feathers, whose colour is derived from the algae and brine shrimps on which the birds feed, lose their colour once the feather is shed—a lifeline for what would otherwise undoubtedly have been a much sought-after bird. And perhaps one of the most eye-opening aspects is the sheer range of birds that once adorned human heads, from birds of paradise and hummingbirds to various species of seabird including the Tristan albatross from Tristan da Cunha, one of the most isolated islands in the world.

Whereas the first six chapters make for grim reading, chapter seven lifts the spirits with stories of the 'six indomitable

Victorian Ladies who made a difference' (p. ii) to whom the book is dedicated. Between them, in the United States and Britain, they began the so-called anti-plumage movement that led to the establishment of Audobon and the Royal Society for the Protection of Birds (RSPB), respectively. They were clever in their tactics, in how and where they sought support and in the way they were evidently able to deal with opposition. I loved the telling of the tale of how Emily Williamson, one of the founders of the RSPB, having been refused membership of the, then very male, British Ornithologists' Union responded by banning its members from joining the Society for the Protection of Birds (the precursor to the RSPB).

One of the remaining three chapters focuses briefly on the extraordinary revival of a demand for mammal fur driven by an obsession with the television folk hero Davy Crockett and his coonskin (raccoon) hat. Finally, the last two chapters turn the reader's attention to the future of the once ruthlessly exploited species, and of the hats and headgear they were exploited for. Their resilience has allowed some species to make a comeback after their persecution ended, only to face new threats of climate change and habitat loss. Although my immediate reaction was one of horror and disgust at our ability to exploit nature so destructively, it also made me reflect on how history will judge us and our current treatment of nature—is it actually any different from the rampant exploitation of the past? The current global pandemic we are living through is inexorably linked to our disregard and destruction of species and natural habitats. This book is a brilliantly detailed and beautifully written case study of how we can be a power for good or for evil when it comes to the natural world. It is a vital wake-up call to the need for us all to change and make a difference.

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