

Book reviews

Swamplands: Tundra Beavers, Quaking Bogs, and the Improbable World of Peat by Edward Struzik (2021) 256 pp., Island Press, Washington, DC, USA. ISBN 978-1-64283-080-4 (hbk), USD 32.00.

Swamplands is Struzik's love letter to a landscape so little thought of that it took until 2017 for the world's largest tropical peatland, the Cuvette Centrale in the central Congo basin, to be discovered. Despite continued draining of the world's wetlands, Struzik explains that they hold cultural and ecological value, with a book that is as much a historical account of American social groups as an autobiographical adventure and a reflection on the importance of peat-reliant fauna and flora. His enthusiasm and personality ring clearly throughout the book, with quirks such as detailed descriptions of the clothing worn by people he meets making the reader feel as though they are journeying with him. By interspersing knowledge from experts such as peatland rattlesnake researcher Smolarz, Struzik presents an engaging and well-informed account of these landscapes, backed up by a Notes chapter containing 16 pages of references.

My hope in reading this book was to gain a greater understanding of these overlooked landscapes. Coming from a culture in which books such as Charles Dickens' *Great Expectations* paint marshes as empty, desolate landscapes of 'long black horizontal line[s]', it is not surprising that I underestimated their value until I read *Swamplands*. From native Americans using swamp plants for medicinal purposes, to European settlers fighting to subdue the land, African enslaved people finding refuge in the Great Dismal Swamp in the Coastal Plain Region of south-eastern Virginia and north-eastern North Carolina, and outlaws sheltering in the desert remnants of ancient bogland, *Swamplands* provides insights on human cultures as much as on the habitats themselves. The challenges of peatland life, conflicting priorities of those living within them, and the benefits these landscapes can bring to us, are themes woven throughout the book. The use of quotes at the start of each chapter builds on this, tying in cultural notions about wetlands as captured by artists. Right from the start of the book, Struzik challenges our preconceived ideas about wetlands, with vivid descriptions of rich landscapes and histories, as he guides the reader through fens, bogs, swamps and marshes.

With cultural relationships to swamps being a strong theme in the book, I was surprised at the heavy emphasis on North American, rather than global, landscapes. At times it felt as

though landscapes outside North America were mentioned only to make a point about those within the continent. It would have been helpful to learn more about places mentioned only in passing, such as the most fauna-rich peatland in the world, in England, or the most extensive mountain peatland, in China. Perhaps the author's intention was to invoke a need to look into these locations following a reading of his book, but it did leave me feeling like part of the story about human connections to wetlands was missing.

Despite these omissions, *Swamplands* provides ample information and valuable insights. Two of my favourite chapters detailed the rich diversity of life within peatlands, from the expansive mountains of Hawaii to a small fen in Alberta. Likewise, anyone interested in human history will be fascinated by the deep dive into the variety of responses of North American cultures to the challenges of living with wetlands. For those interested in how climate change will impact life, the second half of *Swamplands* will not disappoint. Human actions combined with climate change are threatening landscapes with flooding, biodiversity crises, wildfires and carbon release; a 2007 tundra peatland wildfire alone released 2.3 million tons of carbon. In the final chapters one truly gets a sense of the importance of protecting and restoring peat, and of how much we have yet to learn about peatland ecology.

I would wholeheartedly recommend *Swamplands* to anyone interested in reading autobiographical accounts, learning about undervalued and little-understood landscapes, or examining human interactions with the natural world. Whether, like me, you have never delved into the topic of peatlands before, or you already know a great deal about them and would like to understand how they shaped North American history, this book will be equally enjoyable. It is packed with expedition anecdotes, scientific facts and insights into human history, and there is no doubt that you will finish *Swamplands* both more knowledgeable and more appreciative of these boggy landscapes.

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The Treeline: The Last Forest and the Future of Life on Earth by Ben Rawlence (2022) 352 pp., Jonathan Cape, London, UK. ISBN 978-1-78733-224-9 (hbk), GBP 20.00.

Ben Rawlence is justifiably worried. His book was published before the latest report from the

Intergovernmental Panel on Climate Change (February 2022), which reiterated the message that human-induced climate change is causing dangerous and widespread disruptions to the natural world. But unlike the usual focus on tropical forests or coral reefs, the focus of the author's concern is the rapidly changing boreal forest. Boreal denotes the Greek god of the north wind.

The boreal forest gets little international love; it is the poor cousin of tropical, temperate and montane forests. Even savannah ecosystems get more attention. Yet boreal forests cover vast areas, reportedly harbour one-third of all trees on Earth, and after the oceans are the largest ecosystem. With that size it is no wonder that boreal forests have been shown to play critical roles in planetary cycles such as water, oxygen, atmospheric circulation and polar winds.

Rawlence's focus is specifically on the tree-line, by which he means the transition between an arboreal ecosystem and a treeless tundra. In some places this transition zone is just a few meters wide, in others it spans hundreds of kilometres. Whatever its width, this zone is highly dynamic as the climate changes, and in turn affects fire, permafrost melting, and other major ecological drivers. These rapid changes mean that, as the author points out, some places where trees could once sprout have become inhospitable for future generations of trees, whereas places that were once unsuitable are becoming viable habitats where those same tree species can now grow.

In a compelling and well-written set of chapters Ben Rawlence visits a circumpolar selection of boreal forest settings. He structures these visits around the six species of trees that together make up much of the boreal forest: Scots pine in Scotland, birch in Scandinavia, larch in Siberia, spruce in Alaska and, to a lesser extent, poplar in Canada and rowan in Greenland. What is remarkable for those of us less well acquainted with the boreal forests is that these largely comprise single species; for example, just larch comprises over one-third of the whole taiga. These six species essentially are the boreal (at least the tree part).

Each visit is a travelogue complete with local guide, scientists, a bit of adventure, and a short lesson on the focal trees and the fate of the boreal forest they comprise. The account entitled *Chasing reindeer*, set in Norway, is my favourite, with a set of interesting people and a compelling story about changes in the relationship between people, reindeer and birch.

The author is a journalist and has written about war and refugees in Africa, an experience that strongly colours the way he views the boreal world. He writes fluidly and well but