Extreme Conservation. Life at the Edges of the World. Joel Berger. 2018. Chicago: University of Chicago Press. Xxi + 376 p, hardcover, illustrated. ISBN 978-0-226-36626-5. \$30.00.

Within a rather short period of time I had the chance to review two books written by experts in the field, but clearly with a non-expert audience in mind. The first was the marvellous *Spying on Whales* by Nick Pyenson (Pyenson, 2018), and the second one is the present volume, written by biologist and conservationist Joel Berger. At first, I was somewhat deterred by the cover of the book, which shows a polar bear on an ice floe, making me suspect a brutal and cliché-laden polar bear/climate change narrative, which warrants “extreme conservation” efforts, so I approached the book somewhat biased. But, after all, you shouldn’t judge a book by its cover and already on the first few pages my suspicions were proved fundamentally wrong: it is not polar bears, but muskoxen and the difficulties associated with studying them – from harsh conditions to an unsupportive local population – that the reader is being introduced to.

And it is quite incredible how Berger has managed to introduce conservation biology (and biologists) to the reader. Using a style which is not only very close to everyday parlance – including the use of swear words – the reader finds her/himself immersed in the cold, tough, creative and worrisome world of a biologist and his team who examine the surprisingly understudied lives of ungulates in the extreme environments – the edges of the world, as the subtitle of the book fittingly describes. The book is not a science book, obviously, but a book which is written for a lay audience, which, so it seems, is expected to sit in a comfortable urban home, far away from the blizzards of the north.

The first study site Berger takes the reader to is Alaska. Here, Berger examines the ecology and population status of muskoxen. Upon reading, I noticed how little I know about this species and, more importantly, how little I have spent time thinking about this species. Of course, they have been part and parcel of Arctic environmental discourse, but have remained on the outskirts of narratives of Arctic ecosystems. They are, after all, not as charismatic as the polar bear on the book’s cover, for instance. Yet, for Berger that does not make a difference. He dresses up in a polar bear costume just to test a herd’s reaction. He endures extreme cold (and other dangers) to collect data on these animals and displays a passion to understand ecosystems and environments that has yet to find widespread acknowledgement.

From Alaska, the reader is taken to the Tibetan Plateau. What seems like a rather sudden leap, one is quickly reminded that the glaciers of the Himalaya are also considered the Third Pole – a narrative that Iceland’s former President Ólafur Grímsson has widely advertised, for example in the The Himalaya – Third Pole Forum. For the scholar familiar with Arctic, cryospheric or polar research this is nothing new, but for the readers reading the book on their warm couches of Urbana who have not wasted any thought on this connection, this might indeed be a surprising new insight. But also the trained Arctic scholar understands more clearly why there is such a deep link between the two regions: not only is ice a dominant factor, but parallels can also be drawn between the two ecosystems and the roaming wildlife which all somewhat find their equivalent in both regions. For instance, the ecological role and adaptive capacities of yaks *vis-à-vis* muskox cannot be neglected. And while Berger’s observations in the Arctic focused on muskox, in Tibet it is yaks which are at the centre of his attention. Once again, apart from the harsh life of the dedicated biologist, one learns about the ecology of the region, climate and – most interesting for the social scientist such as myself – people. Having done fieldwork in regions that you are not culturally accustomed to, I can fully relate to Berger and his difficulties of getting used to drinking yak butter tea, a Tibetan custom.

The third of the case studies Berger presents in his book stems from Mongolia. In the extreme environment of the Gobi Desert, Berger collects data on the saiga antelope. Again, it is the extremes of the environment and – from a Western perspectives – cultures which make the reader understand that the title of the book is more than appropriate. Moreover, we learn of the difficulties in working together with local communities that are not accustomed to Western researchers and, of course, with their methodologies.

The book, however, does not merely consist of specific case studies in which the author lays out his experiences as a conservation biologist (of which the book contains more also from Bhutan and Wrangel Island in Russia). There is indeed the red thread, which is rested on

the term “extreme” – in this case extreme environments. How has life managed to sustain such awe-inspiring creatures such as muskoxen, yaks or saigas? What becomes apparent in the book is Berger’s deep appreciation for wildlife, particularly in these extreme environments. What also becomes apparent is that *Extreme Conservation* is both a book about how to do science in different environments and geopolitical landscapes, and a book which is somewhat autobiographical. And what strikes me even further is that Berger’s passion circles around species that are mammals and which face severe threats due to a changing climate, but which are to some degree removed from the public’s eye. In this sense, the cover of the book does in no way correspond to the overall message of this work, at least as I read it: all life is equally affected by climate change and all deserve our undivided attention in our conservation efforts.

Style-wise, *Extreme Conservation* reads like a novel and from that perspective serves as wonderful reading for cold winter evenings. But this should not brush the important message of the book under the carpet: our ecosystems are changing and all life will feel these effects. Critics of NGOs engaging in environmental protection often ascribe them an alarmist narrative and from that vantage point it is easy to discredit Berger’s work, who, apart from his role at Colorado State University, is also the Muskox Program Coordinator for the US Wildlife Conservation Society. But this first-hand account of a conservation biologist, paired with a wealth of background information on wildlife ecology and wildlife use by the locals, provides a diverse picture of his work that leaves

the reader quite impressed by the burdens wildlife conservation biologists have to bear to carry out what they do.

I genuinely enjoyed reading *Extreme Conservation* due to the passion with which it was written and the passion which it so thoroughly describes. One or the other type can be found in this book while the sometimes overly colloquial use of language is something to get used to, but it nevertheless is a fun and extremely informative read. Moreover, the book has taken me to areas which I am now able to picture much better – the animals, the landscape and the people. Yet, there is a menacing undertone of either ongoing or impending ecosystem change. In the age of Greta Thunberg’s powerful message of urging for climate action, Joel Berger’s book is a welcome addition and a powerful voice to not only concentrate on species that appear charismatic, but to look at those beyond public discourse. This book is really a book for all audiences – at least those interested in conservation biology, environmental protection, cold environments and remote communities. It is highly recommendable. (Nikolas Sellheim, Helsinki Institute of Sustainability Science (HELSUS), University of Helsinki, PO Box 4, 00014 Helsinki, Finland (nikolas.sellheim@helsinki.fi)).

Reference

Pyenson, N. (2018). *Spying on Whales. The Past, Present, and Future of Earth’s Largest Animals*. London: William Collins.

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