**Review: On the shoulders of Nature by Anne Sverdrup-Thygeson**

Klassekampen, September 2020

**The biodiversity crisis**: a powerful and engaging book about why we need an intact nature.

**Inspired and Saddened**

Reviewer: Erik Steineger

‘I want to show you all the things that the wonderful natural world does, so that you can see what’s at stake.’ This is Anne Sverdrup-Thygeson’s mission statement in the follow-up to her stupendous success, *Insektenes Planet* (*Extraordinary Insects*, 2018).

It’s an ambitious aim, given how tough the competition is for our attention and interest in this kind of thing. Nature films on TV and the internet are becoming increasingly spectacular, and masses of articles and books are being published about biological diversity, climate change and the destruction of nature. So it is something of a feat that this author manages to bring so much new material to the climate debate, and with such great energy.

The book’s ten chapters demonstrate how important nature is for us – as a water purification system, a source of food and medicineas a historical archive and a recreational resource. Some randomly selected examples from the table of contents indicate the book’s thematic breadth: ‘Caretakers of the Water System’, ‘Something Brewing – Wasps and Wine’, ‘Meat-hungry – Past and Present’, ‘Brazil Nuts and Flying Perfume Flacons’. The playful titles might easily give the impression that the book is a collection of fun articles about the marvels of nature. Not that there’s anything wrong with that – and the stories *are* jaw-dropping. The book teems with oddities like blue honey, luminous fungi, frogs that vomit up fully-formed baby frogs and research into plants that can ‘hear, see, smell and feel’ – all this conveyed with genuine enthusiasm and zest.

But it soon becomes clear that the author aims to give us more than just goody-bag of fun facts. In tiny but convincing doses, she shows us why we are utterly dependent on a properly functioning natural world and the intricate interplay between species. The chapter on river mussels, one of the ‘caretakers of the water system’, is a good example of the author’s method. A historical account, involving both the Russian imperial family and Christian IV, is combined with a biological description of the mussel’s water-purifying capabilities. In Norway, the species was previously called the river pearl mussel because some of them contained pearls. These were much sought-after by the rich and powerful. As a result, the mussel is now a threatened species.

On a superficial level, most people are probably aware that we need a lot of intact nature. But do we grasp the implications of that? In this book, typically enough, eloquent examples provide us with the answer. They demonstrate that the management of forests, bogs, waterways and other vulnerable ecosystems still poses a threat to species diversity. Economic interests continue to trump consideration for nature. ‘Growth’ almost always wins out over ‘conservation’. And awareness of what we are losing – in economic terms, too – is astonishingly poor. This is what the author wishes to remedy.

In 2013, a public study was released entitled *Natural benefits – on the values of ecosystem services*. It was based, among others, on several major UN projects, which had calculated the significance of intact nature. The economic value is enormous! The study was full of facts and recommendations but many of them have yet to be followed up with political action. Weighty expert knowledge must be popularised if it is to find its way out into the world and be noticed. Many people have attempted this but few or none have managed to do it as well as this author.

Anne Sverdrup-Thygeson, who is a professor and expert in conservation biology, is masterly in her presentation of fascinating research in her own personal way. She reaches a large public with her points of view and perspectives. Her fundamental position is that a deeper understanding of how important nature is to us will make us want to take better care of it. At the same time, she doesn’t conceal the fact that conservation biology is awash with dilemmas. Is wilderness more worthy of conservation in than nature touched by human civilisation? Is nature’s *intrinsic worth* a good argument in the environmental debate or is nature’s *utilitarian value* more likely to make an impact? The fact that she presents the problems gives her account even greater credibility.

She opens her chapters with well-chosen quotations from poetry or prose and presents her specialist material through *stories*. Often, these are based on her own experiences and directed at the reader: ‘You probably don’t know this but if you’ve ever had an injection, you owe a debt of gratitude to a sea creature with baby-blue blood and the looks of a medium-sized frying pan, which is responsible for ensuring that the contents of the syringe were pure and free from harmful bacterial poisons. Meet the horseshoe crab!’ Using phrases like *Just imagine*… or *Did you know?* is a tried-and-trusted technique in popular science – especially when writing for children and young people.

But the target group here is clearly much larger. We are offered brand new research and thought-provoking reasonings that will teach a great deal even to the most up-to-date reader. The chapter on *shifting baselines* was an eye-opener for me. The term describes the sliding and constantly new frame of reference we use for what is ‘normal’ in nature. It explains why we don’t notice the decline in migratory birds and insects – in short, the slow change and deterioration in the diversity of nature.

Anne Sverdrup-Thygeson has the rare ability to stir us to enthusiasm even as we become sad or angry. The book will almost certainly be read by a lot of people, and hopefully the enthusiasm and grief will lead to greater engagement and political changes.

Erik Steineger is a biologist and author of textbooks.