

Book reviews

Silent Earth: Averting the Insect Apocalypse by Dave Goulson (2021) 352 pp., Vintage Books, London, UK. ISBN 978-1-5291-1442-3 (pbk), GBP 9.99.

My whole life has revolved around insects. As a small child, I would catch, hold and admire insects in the garden, mostly because they were easier to catch than the birds. Today, I am lucky enough to travel around Europe, researching the endlessly fascinating world of insect migration, and insects still provide a great source of happiness for me: the thrill of the hunt for a rare bee, the joy of discovering an insect I have never seen before or the relaxing hours of just looking and observing. Dave Goulson's books make it clear that he is cut from a similar cloth.

Silent Earth is simultaneously a love letter to insects and a battle paean for the fight against climate change and biodiversity loss. It is a factual and scientific book, yet there is so much extraordinary within the invertebrate world that reading it feels like watching a parallel universe, one that is intimately entwined with our own, and at the same time strange and unknown. The approachability of *Silent Earth* is a great boon to those of us who are studying this alternate universe: the book clearly and uncompromisingly describes key issues we want the wider public to understand and appreciate. Yet it is also terrifying.

The book is full of moments that reach deep into your chest, and twist, leaving you breathless and heartbroken. The 'poisoned land' chapter, for example, and the fact that nobody alive can remember just how many cowslips there once were; the recipes that once called for the collection of gallons of the flowers that are now painfully obsolete. A friend described my feelings well when they said: 'I threw the book across the room regularly in my fury at our species' arrogance.' Echoing Rachel Carson's *Silent Spring* with her 'fable for tomorrow', Dave Goulson gives a stark warning towards the end of the book with 'A view from the future', writing from his son's point of view 60 years from now. The world has continued upon its catastrophic trajectory and has left life nearly unrecognisable. As I am writing this in Somerset, in the 40 °C heatwave of July 2022, every *Buddleja* bush I walk past is devoid of butterflies. The warning cannot be heeded soon enough.

When reading *Silent Earth*, I was thankful that between consecutive chapters, as a break from the terror, Goulson intersperses small monographs about the remarkable world of insects. My personal favourite was learning that earwigs are right-handed: they have two penises and prefer to use the right-hand one! And

despite the gloom, Goulson infuses his book with hope. The final chapters are dedicated to what we can all do and the benefits we will gain. Simple plans bullet pointed across the pages lay out actions anyone can take, from national governments through every profession and every way of life: farmers and gardeners, office and factory workers, people shopping and travelling. Each one of us can play a key role and it will repay us all with greater food security, cleaner landscapes and better mental health.

This year of all years, people are noticing the lack of insects in their gardens and parks. I hope this book scuttles and flutters its way out to the widest possible public, taking its message to everyone: Westminster Village to city scape and rural lanes, chief of industry to chef, bus driver to scientist. Everyone needs to be talking about and noticing insects and what they do for us, giving us a chance to rebuild the natural support networks that we, quite simply, will not survive without.

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Why Conserve Nature? Perspectives on Meanings and Motivations by Stephen Trudgill (2022) 400 pp., Cambridge University Press, Cambridge, UK. ISBN 978-1-108-95857-8 (pbk), GBP 39.99.

A book's preface is often illuminating. The acknowledgement of intellectual debts, shared endeavours and support, alongside the occasional airing of grievances, reveals the context in which the book emerged, and its overall purpose. The preface for the late Stephen Trudgill's *Why Conserve Nature? Perspectives on Meanings and Motivations* chronicles his serendipitous journey from researching geomorphology, soils and ecology through to a greater focus on philosophy, art and literature, particularly poetry, from being trained in classically positivist thinking about nature and science, to re-engagement with why he was first interested in nature. This journey was shaped by encounters with colleagues and students from many disciplines, and through his work for the Field Studies Council, observing and making decisions about how students should engage with nature. Trudgill aims to accompany the reader on that same journey, and he makes an interesting and erudite travel companion. He would gently persuade many *Oryx* readers to follow him, to partially reject their scientific training, and re-engage with why they first cared about nature. He does not provide simplistic answers, but nudges

readers with thought-provoking questions, the 'hippy contrarian' described in his obituary (Elliot, 2022, *The Guardian*, 7 February 2022).

Trudgill argues that reasons to conserve nature cannot come directly from human-created concepts that purport to be easy, uncontroversial and objective; he peels away veneers of simplicity from concepts such as nature, species and native, using both his scientific training and his deft engagement with social sciences and humanities. Nor does he see them coming from oversimplified catastrophism about impending doom, or from simplistic ecosystem service arguments; he critiques these from multiple angles, but without rejecting their potentially useful aspects.

Rather, people should conserve nature primarily because of the relationships we have with it. These relationships are slippery, amorphous, heterogeneous and personal, but so are the multiple interactions we have with nature, and how they define us and how we want to live, as humans, communities and individuals. There is substantial focus on art, literature and poetry, as Trudgill's passions and as things that simultaneously reflect and create human relationships with nature. An amusing swipe in the preface, lamenting the turn in universities towards metrics and away from the things that matter, could easily be applied to a conservation movement that focuses on measuring, the easily quantifiable, at the expense of the reasons why people get involved in conservation in the first place. The bibliography contains plenty of ecology papers, but these are outnumbered by the references to social science and humanities sources.

For Trudgill, nature here is fundamentally social, but not irreducible to the social alone. Megafauna and mycorrhizae both exist in and of themselves, but our understanding of and relationships with them are mediated by our social values. This is not a new idea, but it is one eruditely developed here, and it forms the basis for the book's fundamental argument. As Trudgill declares, 'Let us not deny the importance of science and let us not deny the importance of an emotional attachment to sense of place' (p. 322).

The book begins with an exploration of how we experience nature, drawing heavily on psychogeography, before delving into a slightly incongruous chapter on climate change uncertainty and narrative. It then picks up the pace from this slightly bloated start, and tells a compelling story about how humans have represented nature, and what this tells us about both humanity and nature. This is followed by a detailed section on personal meanings of nature, and about how humans understand and relate to the places

where nature is found. The arguments come together in the final, aptly named ‘possibilities’ chapter, which does not identify easy 10-point solutions, but outlines the direction and guiding principles and invites the reader to take their next steps.

Some questions remain unanswered by the book, such as what happens when competing value systems clash. It is also unsurprisingly written from a deeply personal, and therefore English, perspective, and an author from another part of the world would have written a different book. Nevertheless, this book will help the *Oryx* reader to think through their values and their relationship with nature. As recent work led by Rogelio Luque-Lora (Luque-Lora et al., 2022, *People and Nature*, published online 2 August 2022), one of Trudgill’s colleagues, has shown, conservationists do not get involved in efforts to conserve nature because of a love for dry science, but because of the emotions and values that emerged from their relationship with nature. I encourage the readers of *Oryx* to buy this book, let Trudgill’s seminars reshape their thinking, and (re)discover for themselves why we should conserve nature.

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Surviving Climate Chaos by Strengthening Communities and Ecosystems by Julian Caldecott (2021) 392 pp., Cambridge University Press, Cambridge, UK. ISBN 978-1-108-79378-0 (pbk), GBP 39.99.

Climate emergency, climate crisis, climate breakdown, climate catastrophe, climate chaos: it feels like we have found ourselves in the brainstorming session of Hollywood filmmakers looking for the title of the latest blockbuster movie. With a newsfeed full of natural disasters and emergencies—floods, fires or record-breaking heatwaves—we suspect that without immediate action, this story will not have a fairy-tale ending. The science is clear: we are living in a climate and nature emergency, and the plot is about to accelerate.

Building on the recognition that the human-induced climate and nature crises are inherently intertwined, Julian Caldecott’s main argument is that surviving the climate chaos requires communities and ecosystems to be able to cope with near-random environmental and climate impacts. Their strength depends upon their integrity; therefore, preserving and restoring the integrity of communities and ecosystems is the cornerstone of adapting to climate change.

Caldecott explains how international climate policy evolved since the adoption of

the United Nations Framework Convention on Climate Change (UNFCCC) at the Rio Earth Summit in 1992, along with the scientific evidence, the relation of the climate agenda to international development and aid, and biodiversity and sustainability goals. There is a need for placing climate adaptation on equal terms with mitigation (cutting greenhouse gas emissions) as we prepare for the unavoidable impacts. And for this, local-level action is crucial.

Communities experience the impacts of climate change as chaotic and unpredictable, and the risks that threaten their lives and livelihoods increase with every increment of global warming. Thus, every community, each with their own circumstances and dependent upon their own local ecosystem, must find its own way to survive and thrive in an increasingly uncertain climate.

Because of this diverse and context-specific nature of adaptation needs and action, there is no one-size-fits-all solution. And that is partly why the specifics of the Global Goal on Adaptation under the 2015 Paris Agreement are still being negotiated in the international climate forum, being one of the central questions at the COP27 this November. But for many countries it is clear that ecosystem- and community-based approaches play a pivotal role in climate adaptation. This is demonstrated by the detailed case studies from Nepal, Bolivia and Tanzania, which also illustrate best practice for designing theories of change and evaluating impact, based on adaptive performance, while keeping an eye on the qualities that may be more abstract and harder to measure, such as equity, knowledge and governance. Importantly, we welcome the recognition of local values and systems, and the need to address and abandon so-called entitlement myths.

One of Caldecott’s key points is that it is not necessary to reinvent the wheel; rather we should look at already proven tools and practices, such as community-based resources management involving secure tenure, participatory approaches, environmental education and intercommunity networking, through a ‘climate lens’ and integrate that rich knowledge in adaptation planning. Much of what good aid projects do already is also helpful for climate change adaptation, and we just need more of the same but better, whilst applying systems thinking. The author wants us to apply adaptation principles to society as a whole, by addressing the interconnectedness of social and ecological systems. To adapt, we must learn to think adaptively—which is easier said than done.

As climate change has the potential to undermine or reverse previous development

gains, we strongly agree that we need to build synergies across the climate adaptation, development and nature agendas. We share the author’s frustration that the international community is still divided over climate justice and how to share the financial burden of climate action. Nevertheless, we would argue with the opinion that adaptation action might have progressed faster if countries had accepted sooner that the climate changes naturally, with or without making a causal link to human activities. According to the book, mitigation and adaptation could have been addressed separately following the Rio Summit, allowing societies to mainstream adaptation and build resilience to natural variability in climate. In this case ‘all the debate about who caused what and who should pay for it, and the associated delay, would have bedevilled only one of the treaties’ (p. 204). However, the climatic changes we are currently experiencing (and expecting in the future) are more extreme and unpredictable than a climate system without human interference. Without scientific understanding of what degree of impacts can be expected beyond natural climate variability, it is difficult to plan adequate adaptation measures and convince governments to invest in them. Without acknowledging what causes the problem, and without a clear recognition of countries’ contribution to it, we doubt that anyone would have wanted to pay the bill or could have been held accountable for their own share of it. In addition, we would have hoped to find more detail on the increasingly important issue of losses and damages caused by climate change.

Despite the immensely complex topic, the book is written in an easily understandable and accessible way, while keeping its messages relevant for a wide range of audiences. The tone reflects the urgency of the situation and passion of the author. The final section offers specific take-home messages for researchers, teachers, students, national and local governments, aid professionals, the UNFCCC Secretariat, as well as for practitioners and citizens of the very localities that face the adaptation challenge everywhere. Reflecting on hope, purpose, trust, partnership, adaptive thinking and peace with nature, the book’s closure provides a good sense of direction. We found the book a rich, useful and educational resource, and would recommend it to anyone interested in the topic.

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