

Publications

Novel Ecosystems. Intervening in the New Ecological World Order by R.J. Hobbs, E.S. Higgs and C.M. Hall (2013), 380 pp., Wiley-Blackwell, Hoboken, USA. ISBN 978-1-118-35422-3 (hbk), USD 79.95 GBP 45.00.

If you haven't heard about novel ecosystems, read this book. If you have heard about them then read the book anyway. I can't guarantee you will like the book—especially devoted readers of *Oryx* such as me. But I can guarantee that after reading the book you will look at the natural world and the role of conservation practice in a different way.

The editors state that the book is a 'challenge to' but 'not a polemic against traditional conservation approaches that recognize the value of protecting places and ecosystems that retain their original biota and historical character' (p. 3). They consider this traditional approach to be outmoded, quixotic and ineffective, with its continued clinging to the existence of such a thing as a so-called natural ecosystem that can be used as a baseline. Instead, they argue that we must replace this traditional view with one that is open to new goals and approaches based on the ubiquity and inevitability of anthropogenic change and allowing for management of rapidly changing ecosystems in a way that benefits the well-being of both humans and other species. In other words—novel ecosystems.

Although the editors are uneasy about giving the reader a definition, one is provided: 'A novel ecosystem is a system of abiotic, biotic, and social components (and their interactions) that, by virtue of human influence, differ from those that prevailed historically, having a tendency to self-organize and manifest novel qualities without intensive human management. Novel ecosystems are distinguished from hybrid ecosystems by practical limitations (a combination of ecological, environmental, and social thresholds) on the recovery of historical qualities.'

The key issue here involves inevitability and thresholds of irreversibility. A novel

ecosystem is an endpoint and what is termed a hybrid ecosystem is intermediate between a historical ecosystem and a novel one. Management action can return a hybrid ecosystem to a historical one but once you've got a novel ecosystem no management action (or at least no acceptable management action) can return you to another type of system. These are acknowledged as slippery terms and the authors of various chapters do not agree with each other on all points. But their disagreement promotes reflection and learning on the part of the reader.

Unlike many edited volumes this one has an appealing coherence—the reader feels like a guest at a family dinner table listening to the arguments and anecdotes of a group of people who have spent a lot of time together and trust and like each other but by no means agree on everything. This attractive quality is a result of a lengthy process that started with a 2011 workshop and extended through a collective writing process involving shared files, extensive rewriting and new ideas. The result is an unusual format, with the usual main chapters but also with a set of much shorter case studies and perspectives that complement, illustrate and sometimes argue against the main themes. It is a format that works well.

The focus of this book is clearly on ecosystems and the majority of the authors approach the issue of novel ecosystems from the perspective of plant ecology, ecosystem ecology or ecosystem restoration. The issue of novel ecosystems is addressed in a very wide range of contexts, including islands (a common reference point), climate change, engaging the public, the marine realm and urban settings. Particularly welcome to the readers of *Oryx* is a whole section on management, with a real effort to grapple with how the ideas laid out in the book could be put into practice. There is a chapter on fauna that only further emphasizes that the rest of the book is largely about plants. What I found interesting was how this book appears to be largely blind to at least two highly relevant bodies of work with

which I am familiar: historical ecology—with its roots in anthropology and its attention to the ecological effects of earlier humans—and what for lack of a better term might be referred to as empty-forest ecology—an active field that looks at the ecological effects of the removal of fauna by human hunters.

The book is a polemic and it wants to change the world—preferably by yesterday.

But whose minds and behaviour are the editors and authors trying to change? If it is the conservation community—and it appears to be—then it is surprising that 43 of the 50 authors are in university departments or research centres, and only four clearly in conservation organizations. And why is there an antagonistic tone in parts of the book towards the practice of conservation? The chapter on the importance of framing and communicating the concept of novel ecosystems appears not to have been taken in hand by the editors.

Although the editors and several authors maintain that the concept of novel ecosystems is value neutral, it is clearly not, and this book is designed as an argument and needs to own this position better. Perhaps this argument ultimately best serves us in the conservation community by jarring us out of a low-level despondency, to bring us to our senses and promote inspired and energetic new approaches. We must face the fact that the past is not prologue, it is past, and we can't get it back. In what I think is the best chapter of the book Emma Marris, a lead proselytizer for the concept of novel ecosystems, and her co-authors use provocative prose to argue that the novel ecosystem concept may be most useful as a transitional concept to get all of us to start paying attention to, and assigning value to, all manifestations of nature. If this book helps us achieve this goal it will be a success.

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