

*Philosophy and Biodiversity*

Markku Oksanen and Juhani Pietarinen (eds)  
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Biodiversity is like no other current conservation topic. The focus on the preservation of biodiversity occupies the minds and coffers of the world conservation community like nothing else. It has even spawned a vigorous and growing academic discipline: conservation biology. Even such current conservation buzzwords as ecosystem management, ecosystem health, restoration, and sustainability pale in comparison. Like those other contemporary conservation concentrations, however, biodiversity is likewise a topic ripe for – and yet sorely and disturbingly lacking in – philosophical analysis. That is to say, biodiversity is, and has been for some time, a topic perfect for an interdisciplinary discourse between scientists and philosophers.

This collection of essays from both European and North American environmental scholars begins with an introduction by Markku Oksanen which nicely sets up the philosophical issues within biodiversity and adroitly employs the actual essays in the volume to illustrate their systemisation of issues. The twelve-essay volume is next divided into four key sections.

The first section, 'Using 'Biodiversity'', begins with a terrifically nuanced yet lucid essay by Julia Koricheva and Helena Siipi which traces the history of the

development of the idea of biodiversity, demonstrates the relationship between science and ethics, and smartly follows certain assumptions about biodiversity out to their logical (even sometimes painful) conclusions. This essay includes a collection of helpful diagrams and charts that the environmental scholar and teacher should take special note of. The other essay in this section, by Yrjö Haila, boldly and unabashedly attempts to address some of the shortcomings and challenges in discussions about biodiversity, especially within the political and popular sphere. These are quite serious challenges that the biodiversity proponent needs to consider and address.

The book's second section, 'Understanding Biodiversity', starts off with an essay by Juhani Pietarinen tracing our notions of diversity and stability in nature to the dialogues of Plato. By taking the goal of conceptual historical exploration seriously, Pietarinen grounds discussions of biodiversity in a way that we seldom see even in the realms of environmental science and history. Kim Cuddington and Michael Ruse's essay does something similar with the ideas of biodiversity seen in the work of Charles Darwin. Along the way, they nicely unearth our (sometimes unjustified) biases on the topic. The final essay in this section, by Gregory Mikkelsen, is a great example of the work done in the newly emerging philosophical field of philosophy of ecology. In the essay, Mikkelsen presents a persuasive case against a 'strict reductionism' (i.e., the view that only upward causations – where lower level biological organisms determine and explain higher level systems – are ecologically legitimate) in ecology and in favour of more holistic and 'downward' causal explanations of ecological phenomena such as biodiversity.

Section three, 'Valuing Biodiversity', begins with a thoroughly researched and insightful essay by Finn Arler into the little known botanical work of Jean-Jacques Rousseau. Arler convinces the reader that like Plato and Darwin above, Rousseau's is a system of thought worth considering and certainly important in the history of Western thought on topics such as biodiversity. Some may think that Arler's essay does not quite mesh with the other essays in this section, or even the book as a whole. One might be tempted to see it as an essay about an 'historical precedent for valuing biodiversity' rather than one about 'valuing biodiversity' *per se*. Understanding where our ideas come from, however, is, we suggest, itself a laudable and necessary exercise; and Arler does this very well. Keekok Lee next addresses a persistent problem in attempts to preserve biodiversity; namely, how can we positively value and strive to preserve 'natural' biodiversity while at the same time negatively valuing 'artificial' biodiversity. Although she makes some dubious and probably unnecessary claims about the mental faculties and capacities of certain non-human animals, her articulation and defence of 'independent value' as a way to allow us to carve the distinction we desire is definitely intriguing and worthy of serious thought. Next, Peter Hobson and Jed Bultitude warn us about the dangers that they see with allowing discussions in biodiversity to fall prey to the 'historical principle' or the view that

'wildlife will be best served by continuing the historic form of land use practice in those ancient seminatural habitats that have a past record of management' (p. 172). Hobson and Bultitude point out that the preservation of biodiversity and the preservation of a certain ecosystem type or biological point in history may not be the same thing and we should be careful not to confuse them.

The fourth and final section, 'Protecting Biodiversity', kicks off with arguably the best essay in the collection. Raising wonderful questions and making important distinctions, Kate Rawles helps us ponder three crucial questions: can we defend the prioritisation of preserving biodiversity over the lives of individual sentient animals (she suggests that it is not so clear that we can); is the preservation of biodiversity the same thing as the work of conservation (she suggests that it is not); and should the preservation of biodiversity be the goal of conservation (she suggests that it should not). This essay should be required reading for all students, graduate and undergraduate, in any environmental discipline, but especially those going into professional resource management. Using the re-introduction of the Eurasian Beaver in Denmark as a case study, Christian Gamborg and Peter Sandøe discuss the ins and outs of what they see as the three major attitudes toward species reintroduction: wise-use, pragmatic, and respect for nature. Although we would certainly quibble over their distinctions, the essay does demonstrate the intricate link between science, policy, and ethics. The volume concludes with a thoughtful essay by Robin Attfield. Although not directly commenting on biodiversity (not until the last line of the essay, we think) Attfield offers the Rio Declaration on Environment and Development as an example of a document which successfully navigates the terse seas between a document which is overly general or monistic (and hence *unhelpful or impracticable and insensitive to the limits of each participant*) and overly specific or pluralistic (and hence relieving some participants of important responsibilities). For Attfield, the Rio Declaration is exactly the sort of document which articulates a unified and common environmental vision, yet allows for 'differentiated responsibilities' appropriate to the abilities of each participant.

When we consider this volume as a whole certain major themes emerge. First, biodiversity itself is a rich and varied topic with a fluid history – though a few of the philosophers writing in the volume forget or demonstrate a lack of awareness of this. One walks away from a reading of the collection with a solid understanding of the historical origins and the subsequent development of the idea of biodiversity and where it fits within the history and scheme of conservation. Second, taken as a whole, this collection goes a long way toward demonstrating the power and promise of such an interdisciplinary discussion. Individually, some of the essays themselves are also excellent representations of the highest level of interdisciplinary thought that all of us might aspire to. Third, the anthology serves as a particularly robust example of the inescapable relationship between science and values. The book proves decisively that any

helpful discussion of biodiversity must include (perhaps even begin with) a serious discussion of ethics and values.

This collection is significant. Not only does it contain quite important and thoughtful essays by some of our most important and thoughtful conservation scholars, but the nuances that they adeptly articulate in their discussions of biodiversity are those that all environmental scholars, students, and activists should become familiar with. Conservation is too important to endure sloppy thinking and the key concepts (such as biodiversity) within the conservation movement are too philosophically fertile to merely brush over. Luckily we now have a collection of essays that might guide us towards a more serious exploration.

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