

Ecologists use a remarkable range of methods and techniques to understand complex, inherently variable, and functionally diverse entities and processes across a staggering range of spatial, temporal, and interactive scales. These multiple perspectives make ecology very different from the exemplar of science so often presented by philosophers.

In this book, designed for graduate students and researchers, ecology is put into a new philosophical framework that engages with this inherent pluralism while still placing constraints on the ways that we can investigate and understand nature. The authors begin by exploring the sources of variety in the practice of ecology and how these have led to the current conceptual confusion. They argue that the solution is to adopt the approach of *constrained perspectivism* and go on to explore the ontological, metaphysical, and epistemological aspects of this position and how it can be used in ecological research and teaching.

BILL REINERS has practiced ecology for 45 years. His practice has primarily been focused at the ecosystem level, more specifically with biogeochemical phenomena. He has been recognized as an ISI Highly Cited researcher, and has been recognized with a number of campus-wide awards at the University of Wyoming, and as a distinguished alumnus of Rutgers University.

JEFF LOCKWOOD has practiced ecology for 25 years. Fascinated by the interface between the natural sciences and humanities, he now enjoys a joint appointment at the University of Wyoming between the department of philosophy and the MFA program in creative writing. His writing has been recognized with a Pushcart Prize and a John Burroughs Award.

COVER ILLUSTRATIONS: the montage of images illustrates striking contrasts in perspectives of scale and points of view by actors in the Yellowstone ecosystem (clockwise from top left): portrait of a Yellowstone icon – the gray wolf © Monty Sloan www.wolfphotography.com; the eye of a bison, photograph by Richard Mittleman/Gon2Foto www.Gon2Foto.com; wolf harassing a bison, reproduced with permission from Ranjit Warrior; herd of bison on the move in the National Bison Range, photo by Charles M. Kozlerok, reproduced with permission; oblique winter landscape of Yellowstone National Park derived from a National Park Service aerial view.

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