

Despite claims to the contrary, the science of ecology has a long history of building theories. Many ecological theories are mathematical, computational, or statistical, though, and rarely have attempts been made to organize or extrapolate these models into broader theories. *The Theory of Ecology* brings together some of the most respected and creative theoretical ecologists of this era to advance a comprehensive, conceptual articulation of ecological theories. The contributors cover a wide range of topics, from ecological niche theory to population dynamic theory to island biogeography theory. Collectively, the chapters ably demonstrate how theory in ecology accounts for observations about the natural world and how models provide predictive understandings. It organizes these models into constitutive domains that highlight the strengths and weaknesses of ecological understanding. This book is a milestone in ecological theory and is certain to motivate future empirical and theoretical work in one of the most exciting and active domains of the life sciences.

"Scheiner and Willig have assembled a highly valuable compendium of reviews and perspectives on theoretical ecology, including contributions from many of the leaders in the field. This will undoubtedly provide grist for many undergraduate and graduate courses, as well as a stimulus to the whole field of ecology."—Simon A. Levin, Princeton University

"*The Theory of Ecology* provides a simple framework for interpreting the multifaceted role of theory in the field of ecology. This approach is unique, extremely brave, contentious at times, but definitely intriguing."—Kevin McCann, University of Guelph

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