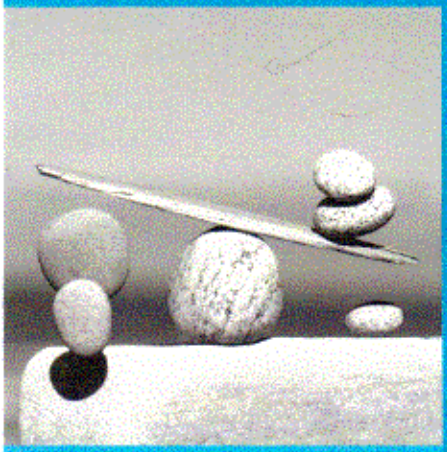
Oxford Series in Ecology and Evolution

Ecologists and evolutionary biologists, especially those with theoretical and mathematical leanings, have tended to dismiss historical approaches as descriptive, smacking of particularities, allowing few generalizations (or even being untestable) and even antithetical to scientific explanation. By contrast, the concept of biological equilibrium pervades every aspect of ecology and evolution, from the popular notion of the 'balance of nature' to sophisticated mathematical analyses of critical points in the state space of scientific models.

This novel book explains the problems associated with an over-reliance on equilibrium-centered explanations, creating a persuasive argument that an explicit consideration of history—i.e., looking beyond the equilibrium—will often lead to a deeper, more nuanced understanding of almost every eco-evolutionary system. The author introduces the concept of 'flavors' of history—the variety of ways in which history can play a critical role in biological processes. Like the flavors of our food, these historical flavors may not always be distinct: they may be blended or overlapping and any number may be present. However, distinguishing between historical flavors is of practical use in explicating ecological and evolutionary phenomena.

Beyond Equilibria: Historical Approaches to Ecology and Evolution is aimed at a broad audience of graduate students and researchers in ecology and evolution. Although there is extensive discussion of mathematical models, the material is presented in such a way that no detailed knowledge is needed. The book will be particularly suitable for a graduate-level discussion course.



Hamish G. Spencer is Sesquicentennial Distinguished Professor at the University of Otago's Department of Zoology.

OSEE

Cover photograph: 'An Imperial Shag (*Leucocarbo atriceps*) coming in to land' © Aleksandr Simonov/Shutterstock.com
Back cover photograph: 'Rock stack moving beyond the equilibrium' © KEVIN ELSBY/Alamy Stock Photo

OXFORD UNIVERSITY PRESS

www.oup.com

ISBN 978-0-19-285900-6

9 780192 859006