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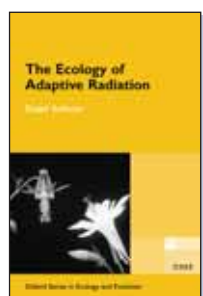
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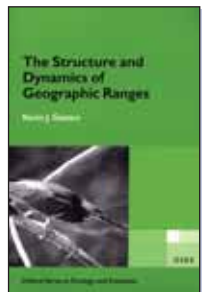
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**The Structure and Dynamics of Geographic Ranges**



**Kevin J. Gaston**, University of Sheffield, UK

'Overall this book deserves to stand on the bookshelf besides other classics of biogeography and makes a very significant synthetic contribution to conservation management that might not only better assist species conservation but also provide a stronger ecological basis for understanding the impacts of visitors on fauna and flora.'

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**NEW FOR 2008**

**Measles**

*Nonlinearity and Stochasticity in an Epidemic Metapopulation*

**Bryan Grenfell**, and **Ottar Björnstad**, Both at The Pennsylvania State University, USA

Measles is a very important human pathogen, which continues to exert a major toll of morbidity and mortality across the world. This book provides a synoptic picture of how the balance between epidemic determinism, stochasticity and external forces such as seasonality drive the dynamics of measles and other childhood infections. Two factors combine to make this a uniquely profitable study system. Firstly, there are hugely detailed and accurate records of the disease's spatio-temporal incidence; secondly, the virus has a very simple natural history which promotes accurate modelling. These factors combined reveal the dynamics of disease control with unusual clarity. This is an advanced textbook suitable for graduate level students as well as professional researchers in the fields of epidemiology and population ecology.

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**Jens Krause**, University of Leeds, UK, and **Graeme D. Ruxton**, University of Glasgow, UK

'... the book does an excellent job of meeting its stated goals, and I recommend it highly.'

*ISBE Newsletter*

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**Charles Nunn**, University of California, Berkeley, USA, and **Sonia Altizer**, University of Georgia, Athens, USA

'I would highly recommend this book to behavioural scientists, veterinarians working with nonhuman primates in biomedical, zoological or field settings and to investigators utilizing nonhuman primates in their disease programs.'

*American Journal of Primatology*

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*The Trinidadian Guppy*



**Anne E. Magurran**, University of St Andrews, UK

'This book serves well as a benchmark in the ascent of guppies as a model organism by providing a concise well written summary of this variation among populations, plus other key research on this species.'

*Trends in Ecology and Evolution*,

Oxford Series in Ecology and Evolution

2005 | 224 pages

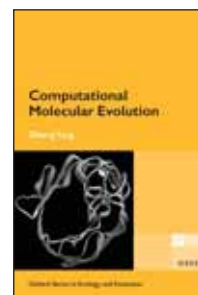
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**Computational Molecular Evolution**



**Ziheng Yang**, University College London, UK

This book describes the models, methods and algorithms that are most useful for analysing the ever-increasing supply of molecular sequence data, with a view to furthering our understanding of the evolution of genes and genomes.

Oxford Series in Ecology and Evolution

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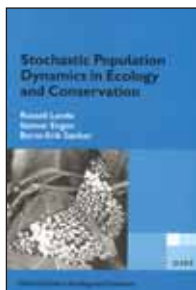
NEW FOR 2008

**Evolutionary Biomechanics**

Adrian Thomas, and Graham Taylor, Both at the University of Oxford, UK

Recent research in biomechanics is increasingly revealing a set of special cases where universal physical laws constrain the trajectories and, more controversially, even the endpoints of the evolutionary process. For the first time this book brings together a broad range of examples from the latest research in evolutionary biomechanics to examine this phenomenon. Each chapter follows a similar theme, dealing first with the underlying physics and then examining the biological responses to selection. Examples of convergent evolution are used to analyze the nature of the trajectories of adaptation during the progressive approach towards a physically defined optimum.

May 2008 | 240 pages

978-0-19-856638-0, PAPERBACK  
978-0-19-856637-3, HARDBACK£24.95/\$49.50  
£55.00/\$109.00**Stochastic Population Dynamics in Ecology and Conservation**

Russell Lande, University of California San Diego, USA, Steinar Engen, Mathematical Institute, NTNU Trondheim, Norway, and Bernt-Erik Saether, Zoology Institute, NTNU Trondheim, Norway

'Our conservation effectiveness depends on our ability to understand biodiversity peril and biodiversity persistence

in the face of random environmental shocks. Lande, Engen and Saether have produced THE seminal theoretical contribution to conservation biology — a brilliant exploration of stochastic influences on extinction and biodiversity. This is not a sterile theoretical treatise; it is a well-written and a certain-to-be-classic melding of theory and real-world examples.'

Peter Kareiva, Lead Scientist, The Nature Conservancy, USA

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**Animal Signals**

The late John Maynard Smith, Professor Emeritus, and David Harper, University of Sussex at Brighton, UK

'This book is essential reading for anyone studying animal signals ... the book is well laid out, and its emphasis on clear definition and logic is without parallel in books on animal communication ... We think

this book marks a significant contribution by Maynard Smith and Harper, a keystone in the communication literature, and a fitting legacy for John as it will speak discussions long after his death.'

ISBE Newsletter

Oxford Series in Ecology and Evolution

2003 | 176 pages

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NEW FOR 2008

**The Energetics and Stability of Real and Model Systems**

John C. Moore, Natural Resource Ecology Laboratory, Colorado State University, USA, and Peter de Ruiter, Soil Science Centre, Wageningen University, The Netherlands

The central theme of this book is that patterns in the utilisation of energy result from the trophic interactions among species, and that these patterns form the basis of ecosystem stability. The authors integrate the latest work on community dynamics, ecosystem energetics and stability, and in so doing attempt to dispel the categorisation of the field into the separate subdisciplines of population, community and ecosystem ecology. The book is indeed timely in that it represents the first attempt to bridge the gap between the energetic and species approaches to ecology.

Oxford Series in Ecology and Evolution

April 2008, 240 pages

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NEW FOR 2007

**Introducing Environment**

Alice Peasgood and Mark Goodwin, Both at The Open University, Milton Keynes, UK

Introducing Environment takes the reader on a guided tour of some of the major

environmental issues of our time. It is the ideal text for anyone new to environmental science and ecology looking to master the essentials in a quick, straightforward way.

March 2007 | 208 pages

978-0-19-921713-7, PAPERBACK

£19.99/\$36.00



NEW FOR 2008

**Allee Effects**

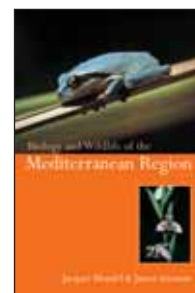
Frank Courchamp, Systématique & Evolution, Univ Paris Sud, France, Jo Gascoigne, University of Wales, Bangor, UK, and Ludek Berec, Biology Centre of the Academy of Sciences of the Czech Republic

Allee effects are (broadly) defined as a decline in individual fitness at low population densities. They can result in critical population size or density thresholds, below which populations crash to extinction. As such, they are very relevant to many conservation programmes, where scientists and managers are often working with populations that have been reduced to low densities or small numbers. There is a whole series of mechanisms that can create Allee effects, from mating systems to dispersal capability, from predator functional response to social structure. The abrupt collapse seen in many exploited fish populations is just one illustration of the need to being Allee effects to the forefront of conservation and management strategies. Allee effects are fast becoming a 'fashionable' area in ecological research. However, despite this recent rise in profile, the literature is still very fragmented. Furthermore, the field lacks coherence and there is only limited communication between different areas. The authors have set out to remedy this situation.

January 2008 | 256 pages

978-0-19-857030-1, HARDBACK

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**Biology and Wildlife of the Mediterranean Region**

Jacques Blondel, and James Aronson, Both at the Centre d'Ecologie Fonctionnelle et Evolutive, Centre National de la Recherche, Montpellier, France

1999 | 350 pages

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