



Students of evolutionary and behavioural ecology are often unfamiliar with mathematical techniques, even though much of biology relies on mathematics. Evolutionary ideas are often complex, meaning that the logic of hypotheses proposed should be tested not only empirically but also mathematically. There are numerous different modelling tools used by ecologists, ranging from population genetic 'bookkeeping', to game theory and individual-based computer simulations. Due to the many different modelling options available, it is often difficult to know where to start. Hanna Kokko has designed this book to help with these decisions. Each method described is illustrated with one or two biologically interesting examples that have been chosen to help overcome fears of many biologists when faced with mathematical work, whilst also providing the programming code (Matlab®) for each problem. Aimed primarily at students of evolutionary and behavioural ecology, this book will be of interest to any biologist interested in mathematical modelling.

HANNA KOKKO is a Professor in the Department of Biological and Environmental Science at the University of Helsinki.

'This is an inspired text: it will certainly find its own enthusiastic suite of readers.'

PROFESSOR ILKKA HANSKI *Department of Biological and Environmental Sciences, University of Helsinki*

'With wit and clarity Hanna Kokko introduces the reader to a variety of modelling approaches that all biologists who work on whole organism would do well to consider. I read her book with pleasure and profit and warmly recommend it to all those like me who have felt that they ought to know more about mathematical modelling but did not know where to start.'

SIR PATRICK BATESON *Emeritus Professor of Ethology at the University of Cambridge*

COVER ILLUSTRATION AND DESIGN
BY JACKIE TAYLOR

CAMBRIDGE
UNIVERSITY PRESS
www.cambridge.org

ISBN 978-0-521-53856-5



9 780521 538565