

## Animal Population Ecology

Animal population ecology comprises the study of variations, regulation, and interactions of animal populations. This book discusses the fundamental notions and findings of animal populations on which most of the ecological studies are based. In particular, the author selects the logistic law of population growth, the nature of competition, sociality as an antithesis of competition, the mechanism underlying the regulation of populations, predator–prey interaction processes, and interactions among closely related species competing over essential resources. These are the notions that are considered to be well-established facts or principles and are regularly taught at ecology classes or introduced in standard textbooks. However, the author demonstrates that these notions are still inadequately understood, or even misunderstood, creating myths that would misguide ecologists in carrying out their studies. He delves deeply into those notions to reveal their real nature and draws a road map to the future development of ecology.

T. ROYAMA is well known for his field studies of great tit and spruce budworm, and his contribution to theoretical ecology through the innovative application of stochastic processes. His previous book, *Analytical Population Dynamics* (Chapman & Hall, 1992), had a significant impact on population ecology. He was also a recipient of a Gold Medal of Entomological Society of Canada in 1994.

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*An Analytical Approach*

T. ROYAMA

*Canadian Forest Service (retired)*



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To the memories of my mentors

David E. Lack	Shunro Utida
George, C. Varley	Patrick A. P. Moran
Nikolaas Tinbergen	R. Franklin Morris
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