

Ecological versatility and community ecology

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The presented book is a part of the Cambridge Studies in Ecology series, written by Ralph C. Mac Nally, working at the Department of Ecology and Evolutionary Biology in Melbourne, Australia.

The book deals primarily, as suggested by its name, with ecological versatility. The definition, description and various insights into the topic and given throughout seven main chapters of the book, each one handling the theme from slightly different viewpoint.

The ecological versatility, as used in the book, is defined by the author himself as 'the degree to which organisms can fully exploit the available resources in their local environment'. In other words, a living organism may be considered to represent a specialist or a generalist regarding different resources available in the environment. Ecological versatility expresses the position of an organism between the state of being a strict specialist and the opposite position of being a broad generalist.

The book is aimed to answer several questions concerning the versatility, or better said, to contribute to their possible resolution: how much do we know about versatility in nature, how our theories correspond to field observations and last, what are the mechanisms determining whether a species is ubiquitous or linked to a specific site. The reader should know that the book deals especially with terrestrial animals and there are fewer pages devoted to other groups. However, an interested reader will find a number of references to look for and compare other group of living organisms.

The author gives a wide overview of publications that appeared in various journals in 1970's and 1980's. The overview was set up from individual case studies to show the criteria of analysis of versatility in natural conditions. It does not only give the reader basic picture of the used and proposed methods but enables to set similar criteria in one's own work. The book discusses interactions between coexisting species and their populations, the degree of influence and dependence in groups such as herbivores, parasites, predators, omnivores, etc. Another part is dedicated to the influence of population structure upon versatility, becoming very important in extreme cases when a juvenile form of a organism may be strictly herbivorous while its adult form is carnivorous, or a parasitic organism that uses specific host in a certain stage of ontogenesis. The book attempts to find and point at links between population dynamics and versatility. Ubiquity or habitat versatility of living organisms is discussed, matching examples of both species found in number of habitats as well as species restricted to a single habitat with the present knowledge on physiological tolerance of the species.

Glossary of terms includes many terms used in the text with primary references cited, if possible. Two appendices, A and B, list the details of surveys studies used in the book and some details on mathematical models presented in the book, respectively.

Scientific publications from Anglo-American region do not refer to authors from Central and Eastern Europe dealing with similar issues. Citation of such valuable papers which are able to support and demonstrate modern theories and hypotheses do not appear in these works.

The book is addressed to all those involved in research in ecology, from graduate students, researches or specialists in the field of ecology.

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