

Techniques in Molecular Systematics and Evolution

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The amount of information that can be obtained by using molecular techniques in evolution, systematics and ecology has increased exponentially over the last ten years. The need for more rapid and efficient methods of data acquisition and analysis is growing accordingly.

This manual presents some of the most important techniques for data acquisition developed over the last years. The choice and justification of data analysis techniques is also an important and critical aspect of modern phylogenetic and evolutionary analysis and so a considerable part of this volume addresses this important subject. The book is mainly written for students and researchers from evolutionary biology in search for methods to acquire data, but also from molecular biology who might be looking for information on how data are analyzed in an evolutionary context.

To aid the user, information on web-located sites is included wherever possible. Approaches that will push the amount of information which systematics will gather in the next few years by using high throughput methods and access to genomics information are also discussed in the manual. In summary, this book is a comprehensive account of practical vs theoretical and modern vs future achievements of molecular systematics in evolutionary biology.

Features:

- describes recent techniques for data acquisition and analysis in evolutionary biology and systematics
- detailed protocols to guide the reader step by step
- broad theoretical background information on applications
- gives prospects for future approaches
- information on important websites
- thorough survey of the state of the art

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