MOLECULAR TOOLS FOR SCREENING BIODIVERSITY

Molecular Tools for Screening Biodiversity, Plants and Animals, Angela Karp, Peter G. Isaac and David S. Ingram (eds.), Chapman & Hall, London, 1998, 498 pp., hardcover, ISBN 0-412-63830-4.

Written by distinguished experts in the field, this unique volume details the power and versatility of molecular techniques for the screening and evaluation of biodiversity. In the present time, molecular technologies are routinely applied to the assessment of biodiversity in a wide spectrum of experimental systems. In this book the attention is paid to plants and animals.

The volume is divided into five parts. Part 1 contains chapters on DNA extraction, Part 2 deals with a description of basic screening methods available to experimenters, from isozymes to a whole range of PCR-based methods. Part 3 highlights the sources of probes and primers. Almost all chapters inserted into the early three parts of the book also include detailed step-by-step protocols for the effective use of molecular techniques in the laboratory work. Such organization makes the substantial part of this book the laboratory manual. Part 4 comes with analysis of data assembled by molecular techniques. Those chapters are mainly descriptive to explain different terminologies and methods of analysis. The book finishes with the remaining Part 5 devoted to case studies of the assessment of biodiversity in individual collections or natural populations, and for classification, phylogeny and useful variation.

Though this is a clever book thoughtfully presented with many original figures, and aimed at investigators of many disciplines, including conservationists, taxonomists, evolutionists, population biologists, clearly a strong background in the molecular and population biology is required. Solving of forest topics is presented from the molecular perspectives, so it means that forester-experimenter at first must build up a more complete understanding of the molecular processes.

Jaroslav Ďurkovič (Zvolen, Slovakia)