
 Book reviews

Silvertown, J. W.: Introduction to Plant Population Ecology. London New York: Longman 1982. 209 pp., several figs., several tabs. Soft bound £ 7.95.

This is a very useful and interesting book. The most important topics of modern plant population ecology are discussed on 185 pages; long enough to explain things in the proper way, yet short enough to get a realistic chance to be read. The book begins with an introduction to plant demography and examples of life table constructions. The ecology of reproduction and the regulation of population density in plant populations is then discussed. Special emphasis is given to the “ $-3/2$ power” – law, which appears important for yield predictions in forestry and agriculture. A special chapter deals with vegetative propagation and clonal growth. Synecological factors are finally analyzed in the chapters on “interactions in mixtures of species” and “coexistence and niche separations”. The entire text concentrates on true ecology and no attempts are made to show how the ecology of plant populations depends on evolutionary or population genetics processes. Terms like “adaption”, “selection” or “mutation” do not appear in the index of the book. This, however, is not necessarily a disadvantage depending on what the reader expects. Those who want to learn from the book strictly what its title says are well advised to use it as a good introduction to the field.

D. Sperlich, Tübingen

Linn, S. M.; Roberts, R. J. (eds.): Nucleases, Monograph 14. Cold Spring Harbor: Cold Spring Harbor Laboratory 1982. 378 pp., several figs., several colorplates. Hard bound \$ 45.00.

Another Cold Spring Harbor volume, very complete and thorough in its survey of the topic of nucleases, it is the official record of a special meeting held in 1981. Since “meddling” with DNA has become a popular pursuit, restriction endo-

nucleases have indeed become of wider interest. They are reviewed in this book in great detail, and an appendix is included showing the specificity and number of cleavage sites on several DNA species for a large number of these enzymes.

The restriction endonucleases are not, however, the only topic of the book. The various and intricate ways in which nucleases play a role in repair, recombination, replication and restriction are dealt with in twelve interesting and intriguing chapters. The manuscript of the keynote address to have been given by Michael Laskowski, one of the pioneers of the field, but who died before this meeting was held, has been used as the first and introductory chapter in the book. Then follows chapters on nucleases in genetic recombination, DNA topoisomerases and nucleases involved in DNA repair, all very detailed and complete in coverage.

Two chapters are devoted to the restriction endonucleases and then follows an informative exposition of the many single-strand specific nucleases found in a bewildering array of organisms. A chapter on nucleases involved in DNA replication completes that section of the book devoted to DNAses, except for a chapter on deoxyribonucleases of *E. coli* by S. Linn, which brings up the end of the book.

In view of the new and interesting RNA nucleases, such as the so-called resolvases thought to be involved in transposition and also the splicing enzymes needed to process RNA in eukaryotes, the large number of pages in this section of the book devoted to this area reflects their importance. A chapter on the use of nucleases in RNA sequence and structural analysis demonstrate the power of enzyme specificity as an analytical tool.

This book devoted to the nucleases is wide in coverage and yet gives adequate detail when necessary. It is a must for the bookshelf of all those working with nucleic acids.

J.F. Jackson, Nijmegen