
 Book Reviews

Rattazzi, M.C.; Scandalios, J.G.; Whitt, G.S. (eds.): Isozymes: Current Topics in Biological and Medical Research, Vol. 4. New York: Liss. 1980. 218 pp., 20 figs., 17 tabs. Hard bound dfl 78,—.

The general theme of this series, 'Isozymes: Current Topics in Biological and Medical Research' is the role of isoenzymes in the biology of prokaryotes, plants, man and other animals. Its goal is to bring readers up-to-date with new concepts and technologies in the area of isoenzyme research. Rather than providing an exhaustive review of the literature, the articles in this volume present recent research from only a few laboratories against the broad background of previous and current research from other groups. Each article has its own author(s). The first 68 pages focus on the biochemical and developmental genetics of isoenzymes in mice. Special attention is paid to isoenzymes in early embryonic development and linkage relationships of structural genes in mice, both with a long survival table. Enzyme activity variation in inbred mice, isoenzyme transitions in organ ontogeny, synthesis and degradation of lactate dehydrogenase and differentiation completes the review of the first author.

The second part of the book deals with bioautographic visualization of enzymes. Bioautography utilizes the growth of deficient bacteria to detect a particular (iso)enzyme. This technique extends the number of enzymes that can be detected after electrophoresis. The methodology and the applications of bioautography are clearly described.

Alcohol and aldehyde dehydrogenase isoenzymes from mammalian liver — their structural and functional differences are described in the third chapter. These proteins are the major enzymes in the initial steps of ethanol metabolism. For both enzymes occurrence, molecular properties, subcellular distribution, purification and differences between isoenzymes are described.

Article four presents the current status of adenosine deaminase from eucaryotes. Characteristics such as molecular weight, electrophoretic properties, gene mapping, the 'combining' protein and purification are described in detail.

The books' last chapter deals with the genetic regulation of iso-

enzyme patterns in *Drosophila* during development, especially with regard to the genetic regulation of the phenotypic expression of the esterases.

Isoenzymes are widely used to characterize gene activity. Researchers and students who intend to start working in this field will have a good introduction by reading the relevant chapters.

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Osmond, C.B.; Björkman, O.; Anderson, D.J.: Physiological Processes in Plant Ecology. Towards a synthesis with Atriplex. Ecological Studies, Vol. 36. Berlin-Heidelberg-New York: Springer 1980. 468 pp., 194 figs., 76 tabs. Hard bound DM 98,—.

At the beginning of a story about the field of tension between detailed exactitude and overall understanding the authors quote Tokien, who describes the artist Niggle, who wants to paint a whole tree, but is much better in painting a single leaf in utmost detail. This is characteristic of and applicable to the authors of this book, with the only but all-important difference between them and Niggle, that they (perhaps) realize their own shortcomings.

The book is an exemplary, masterly, ecological study, but it remains entirely autecological. The authors hardly could have done better regarding the views they hold on what ecology is and what it should be. Apparently, they do not really believe in functional relationships at the ecosystem level, and in reality they reject almost anything beyond their ecophysiological, causal way of thinking. Nevertheless, or perhaps because of this, their achievements are admirable. The book is a real treasure-trove of ecophysiological data on arid-land *Atriplexes*. The critical evaluation of experimental results and the comparison thereof with a wide body of literature data is most stimulating, particularly as these usually result in clearly formulated statements, often of a testable character. The attitude of the authors is critical, the reasoning is intelligent, the results rich, and the achievements admirable, and yet, in its discussions the book shows many instances of a dogmatic approach to ecology. It makes worthwhile reading, though, for any ecologist.

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