Campbell, G.S., Norman, J.M.: **An Introduction to Environmental Biophysics.** 2nd Ed. - Springer-Verlag, New York - Berlin - Heidelberg 1998. ISBN 0-378-94937-2. 286 pp., DM 68.00, GBP 26.00, FF 257.00, Lit. 75.090, USD 39.95, öS 496.40, sFr 60.00.

The book intended as a practical textbook of environmental biophysics for university students is based on a long-time experience with teaching this subject in courses at the universities tought by the authors. This conception of a practical textbook governs the whole text of the book. This means that the basic concepts are explained clearly and in detail followed by illustrative solved examples. The most important formulas are usually derived or the derivation outlined, the empirical formulas are well explained. There are many practical figures and tables to be used for calculations or demonstrations of the effects. At the end of each chapter several problems for individual analyses and discussions are formulated.

The book comprises 15 chapters that are supplemented with Appendix, List of Symbols, and Index. References given in each chapter are not only the cited ones but also those extending the topic of the chapter. The text is devoted to a correct physical description of the physical parameters of the microenvironment and to phenomena of mass and energy transport between the organism and its surrounding. Adequately simple or approximate mathematical models that enable a calculation of the physical parameters are presented and explained. One of the aims of the book is to train students in direct numerical calculations and estimations of the desired quantities. The calculations are very illustratively demonstrated in the solved examples. The use of equations and graphs is similar to an engineering approach.

Several chapters are devoted to basic physical quantities that characterize the environment of a living organism (temperature, humidity, wind, radiation). Other chapters deal with heat and mass transport in a more general sense. Two chapters are devoted to heat and water flow in soil, two chapters describe the energy and mass exchange of animals and humans with their environment. Of interest for readers of Photosynthetica might be Chapters 14 and 15 describing the relation between plants and plant canopies with the physical environment. Concepts of leaf temperature, assimilation models, radiation environment, optical properties of plants and canopies are presented among others. Many important properties of soil or air are treated. Remote sensing of several canopy parameters is also shown (temperature, reflectivity, *etc.*).

In many respects the approach of the authors should be stimulating for students and researchers. I would mention a correct using of the SI units, preferring the mol containing units. Such important concepts as humidity or water potential are clearly elucidated using examples. It might be of interest that the water potential is related to mass and expressed in units J per kg instead of the usual pressure units.

I think that the book is very suitable for courses of undergraduate and postgraduate students in biophysics, ecology, and physiology. It may be of interest to scientists in these fields, mostly to those willing to improve the correct understanding and reasonable estimation of physical parameters of living organisms and their energetic interactions with the surroundings.

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