

SCHÖNBORN, W.: **Fließgewässerbiologie**. Gustav Fischer Verlag, Jena – Stuttgart – New York 1992. 504 p., 169 figs., 23 tables. Price: Hardcover DM 118.00. ISBN 3-334-60396-2.

WILFRIED SCHÖNBORN, protozoologist and general ecologist at the University of Jena (Germany), has undertaken the difficult task to write a “Biology of Running Waters”. Everyone who knows the enormous literature available on this subject will admire his effort and courage. To select and condense the huge amount of data to 500 well-written pages is not only incredible work but needs a deep penetration of the subject rarely encountered in modern times. The book is divided into 7 logically arranged chapters. Chapter 1 (3 pages) compares running and stagnant waters. SCHÖNBORN shows that the uniqueness of running waters is caused by a single main factor, viz. the fall which produces an ecocline with many discontinuities.

Chapter 2 (26 pages) describes the physical and chemical properties of running waters. Particular attention is, of course, given to the current which deeply influences abundances and structures of animal and plant communities.

Chapter 3 (164 pages) deals with the fundamentals of the biology of running waters. The vertical and horizontal zonation and the properties of the main groups of freshwater organisms are described in great detail. This part is really outstanding and shows how organism communities are influenced and structured by not yet fully understood interactions of biotic and abiotic factors.

Chapters 4 and 6 (79 and 27 pages respectively) inform mainly on practical aspects, i.e. about trophy and saprobity and about the restoration of regulated rivers. It is shown how anthropogenous influences change the abundance and community structure and how these changes can be used to evaluate the water quality.

Chapter 5 (48 pages) describes energy-fluxes and discusses in detail primary and secondary production, energy budgets, modelling, and the “river continuum concept” as outlined by VANNOTE et al. (1980). This chapter is outstanding by its clarity, compactness, and comprehensive literature review. Finally, SCHÖNBORN defines a running water “as a continuum whose great elasticity integrates, but not compensates, the inherent discontinuities” (p. 347).

Chapter 7 is an invaluable guide to the literature gathering about 2500 (!) references used in the foregoing sections. The book closes with an index to the organisms mentioned and a detailed subject index.

Shortcomings or weaknesses are difficult to find. Of course, SCHÖNBORN had to select among thousands of references available and some studies, although important, are not mentioned. Tropical rivers, which increasingly come into the focus of hydrobiologists, are treated too shortly. Some photographs of the organisms living in running waters would have made the book more attractive.

This affordable and nicely edited (rare in modern times with its flood of superficially written and produced books!) book is a milestone in the literature on running waters. There is nothing to compare it! It is unique by its synecological views, the comprehensive literature coverage, and – what is of special interest for the protozoologists – the recognition of the importance of the microfauna. SCHÖNBORN’s „Fließgewässerbiologie“ soon will become a “classic” in its field and is a “must” for all scientists, university teachers, and students working on running waters; scientists from neighbouring and distant fields will find a clearly written “dictionary” reflecting the state of art. An English translation is highly recommendable. As far as I know, there is no book of this quality available in the English speaking world.

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