Lampert, W., Sommer, U.: **Limnoökologie.** - Georg Thieme Verlag, Stuttgart 1993. 440 pp.

As suggested by its title, this textbook represents an attempt to present limnology in a new way, namely by an approach more compatible with the present-day terrestrial ecology. Less attention is given to the systems character of limnology, and the aquatic ecology (limnoecology) is treated as a more populations oriented science with an evolutionary flavour.

The book starts with an introduction into evolutionary thinking. The adaptation of organisms to abiotic factors is treated as a one-sided process. The Popperian methodology of scientific reasoning and hypothesis testing is introduced in Chapter 2. The next chapter on the specificity of aquatic environment starts classically with physical factors. The aquatic environment is considered by the authors as a rather predictable one. In the chapter about the "Individuum in its environment" the effect of physical variables is considered to step behind as compared to biotic variables. The adaptation of organisms to different factors of the environment represents a reasonable proportion of this chapter. Great part of the "Population" chapter is devoted to the control of population size. The concept of r- and K- strategists among freshwater organisms is dealt with. The largest chapter is on "Interactions". Here simple models and theory of resource competition are given. Grazing is dealt with in particular detail for zooplankton. Hypotheses concerning predation as well as the evolution of life strategies are explained. Community ecology of freshwater organisms begins with a definition of the biocoenosis as a system of populations in strong interactions. The authors stress what they call a darwinian concept, stating that communities and ecosystems as wholes undergo evolution through selection and reproduction of the selected characteristics and that the characteristics of the communities can be optimized on the cost of the individual populations. The bottom-up and bottom-down controversy is treated. Diversity and stability problems are treated in the conventional manner. Much less attention is given to the water body as an ecosystem. The authors consider the energy and matter fluxes as abstractions produced by the aggregation of the activities of individual organisms. The trophic concept and fluxes of carbon, nitrogen, phosphorus and silica are outlined. The trophic system given is based on phosphorus concentrations and presented as a basis for the solution of the eutrophication problem. At the end of this chapter, somewhat out of order, particular attention is given to the problem of succession.

This booklet is well written and well illustrated by schematic drawings and can be used as an introductory text both by those, who are of holistic and individualistic orientation, in spite that the authors declare to belong to the atomistic club. A positive feature is the attempt to cover equivalently both the organisms of standing and of flowing waters, animals and plants. There are also good cross-references between different chapters and a glossary of terms.

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