Book Review

Vernon Ahmadjian. *The Lichen Symbiosis*. Wiley, New York, 1993. 250 pp. ISBN 0-471-57885-1.

This book presents a fair coverage of the literature on lichen research since the previous version of *The Lichen Symbiosis* by V. Ahmadjian in 1967. As reflected in the various chapters of this book, lichens are very difficult objects for research, but still about 1000 investigations published during the last 25 years are cited. None of them are on the taxonomy or systematics of lichens. Those are abundant in other treaties.

Emphasis is on culturing of the symbionts (mycobionts and photobionts) and the attempts of reestablishing lichens under controlled conditions; a prerequisite for experimental studies (4 chapters). Two chapters cover the present understanding of physiological interactions between the bionts in nature and their effects on thallus development.

Lichens are well known as bioindicators of pollution, and a detailed chapter is devoted to this aspect.

Very little has been done so far by means of molecular biology techniques in lichen research. The chapter covering molecular biology of lichens mainly stresses the targets that research should be aimed at.

Each of the eight chapters ends with a summary and finally there is an Appendix with practical suggestions for symbiont isolation and culturing methods. The book provides a useful text for everyone interested in experimental lichenology.

Margalith Galun Symbiosis Research Lab. Department of Botany, Tel-Aviv University