

Book Reviews

Cellulose: Biosynthesis and Structure

I.A. Tarchevsky and G.N. Marchenko.
Springer-Verlag, Berlin. 1991. xii + 322 pp.
Illustrated hard cover, DM 268.000. ISBN
3-540-52247-6.

This book is composed of two rather unintegrated parts: 'Biosynthesis of Cellulose' and 'Cellulose Structure'. Part one, written by Tarchevsky, shows clearly that at present, writing a monograph is an almost impossible task. Tarchevsky is an expert in photosynthesis, and the chapters dealing with photosynthetic protoplasts are interesting but cover only a small part of the topics in the book. The chapters dealing with cell wall ultrastructure, putative cellulose synthesizing complexes in the plasma membrane, and the influence of microtubules on cellulose deposition are full of misinterpretations of the existing literature. The Russian original may serve the purpose of introducing western developments to Russian scientists, but for western students better sources are available.

I am not an expert on the topic in part two, written by Marchenko, on the supramolecular organization as the general basis of the morphological structure of cellulose. Still, I doubt whether it represents a balanced overview of the field today. This part contains 239 references, almost all of them from Russian authors, 160 of which are from the sixties and seventies, and only 36 from the eighties.

The whole book is scattered with misspellings and typographical errors. In conclusion, I cannot recommend this book. A much better recent book on cellulose is *Biosynthesis & Biodegradation of Cellulose & Cellulosic Materials*, P. Weimer and C.H. Haigler (eds). Volume 1: *Cellulose: Science & Technology*, R. Atalla (ed.) Marcel Dekker Inc., ISBN 0-8247-8387-5.

A.M.C. EMONS

(Fieldwork European Orchids)—Veldwerk Europese Orchideën, een handleiding

D. W. Kapteyn den Boumeester and P. Brederoo (eds). KNNV (Isidorusweg 21, 5624 KD Eindhoven). 1991. 62 pp. Illustrated paperback. DF 124.00 (incl. postage). ISBN 90-5011-046.

According to the preface, this book is written for the Orchid-amateur who wishes to contribute to the scientific work done in this field. It serves as a manual, with the kind of information usually not found in the Orchid literature. Thus, the book gives a survey of diverse subjects, ranging from basic knowledge of Flora usage to specialized information about macro photography. It has a glossary of the terms used in Orchid descriptions and a list on systematic Orchid literature.

The nine chapters (1: Types of field work and other activities; 2: Negative aspects of field work; 3: Floral structures and terminology; 4: Identification of Orchids and other plants; 5: Orchid literature; 6: Mapping; 7: Reports; 8: Macro photography; 9: Protection and management of Orchid populations in the Netherlands) were written by different authors which has had an adverse effect on the consistency of the writing. On one hand there are warnings meant for absolute beginners: leave Orchids where they are, do not trample their habitat. On the other hand there are directions for mapping Orchids and writing reports that require a better knowledge than simply the names of the plants.

The illustrations are generally good. However, the caption 'Fly Orchid (*Orchis apifera*)' for the drawing on p. 56 is misleading: the plant is a Bee Orchid (*Ophrys apifera*), and the inset is a flower of a Fly Orchid (*O. insectifera*).

F.T. DE VRIES