REVIEW

A. SHARMA & S. SEN: **Chromosome Botany.** INTERCEPT Ltd, Andover, Hampshire, 2002. 155 pp., illus. ISBN 1-898298-89-0. Price: GBP 35.

This book gives a broad overview of the current knowledge assembled on chromosomes in plants. After some introductionary chapters on structure and components, cell division and karyotypes, characteristics of chromosomes in algae, fungi, bryophytes, pteridophytes, gymnosperms and angiosperms are discussed. Subsequent chapters cover chromosome behaviour during cell differentiation, nuclear DNA content, and sex chromosome differentiation. The final part of the book is dedicated to identification of chromosome segments using In Situ Hybridization and mapping techniques, and external agents in the induction of chromosome alterations such as food additives, pesticides and drugs.

The authors claim to have written a reference book for students of genetics, evolution and biodiversity. Reading the meagre appendix only covering a few simple protocols for staining while completely omitting now very popular molecular hybridization techniques such as FISH and GISH was therefore very disappointing. In addition, not many references are given in the text, making the book significantly less comprehensive than it could have been.

The first chapters, however, clearly explain the jargon used in the study of chromosomes extensively. In the remaining part of the book several illustrative plant case studies are described, placing variation in chromosome size and number, and the various ways by which dioecious plant species can develop from monoecious species in an appealing evolutionary context. The authors managed to give an animated broad overview of current and future directions in plant chromosome research, which will certainly be of use to students in this discipline.

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