

Contents

1	Angiosperm Phylogeny: A Framework for Studies of Genome Evolution	1
	Pamela S. Soltis and Douglas E. Soltis	
2	The Plant Nucleus at War and Peace: Genome Organization in the Interphase Nucleus	13
	R. Neil Jones and Tim Langdon	
3	The Organization of Genomic DNA in Mitotic Chromosomes: A Novel View	33
	Hideaki Takata, Sachihiro Matsunaga, and Kazuhiro Maeshima	
4	Structural Organization of the Plant Nucleus: Nuclear Envelope, Pore Complexes and Nucleoskeleton	45
	Elena Kiseleva, Jindriska Fiserova, and Martin W. Goldberg	
5	The Plant Nucleolus	65
	Peter Shaw	
6	Cell Cycle Modules in Plants for Entry into Proliferation and for Mitosis	77
	Zoltán Magyar, Masaki Ito, Pavla Binarová, Binish Mohamed, and Laszlo Bogre	
7	Endopolyploidy in Plants	99
	Jolanta Maluszynska, Bozena Kolano, and Hanna Sas-Nowosielska	
8	Meiosis: Recombination and the Control of Cell Division	121
	Eric Jenczewski, Raphael Mercier, Nicolas Macaisne, and Christine Mézard	
9	Mechanisms of Chromosome Rearrangements	137
	Martin A. Lysák and Ingo Schubert	
10	Biology and Evolution of B Chromosomes	149
	Andreas Houben, Ali Mohammad Banaei-Moghaddam, and Sonja Klemme	
11	Chromosomes and Sex Differentiation	167
	Bohuslav Janoušek, Roman Hobza, and Boris Vyskot	
12	Holocentric Chromosomes	187
	Petr Bureš, František Zedek, and Michaela Marková	
13	Karyotype Diversity and Evolutionary Trends in Angiosperms	209
	Hanna Weiss-Schneeweiss and Gerald M. Schneeweiss	

14	Karyotype Variation and Evolution in Gymnosperms	231
	Brian G. Murray	
15	Karyotype and Genome Evolution in Pteridophytes	245
	Michael S. Barker	
16	The Incidence of Polyploidy in Natural Plant Populations: Major Patterns and Evolutionary Processes	255
	Brian C. Husband, Sarah J. Baldwin, and Jan Suda	
17	Significance and Biological Consequences of Polyploidization in Land Plant Evolution	277
	Jeffrey A. Fawcett, Yves Van de Peer, and Steven Maere	
18	Evolutionary Importance of Generative Polyploidy for Genome Evolution of Haploid-Dominant Land Plants	295
	Stefan A. Rensing, Anna K. Beike, and Daniel Lang	
19	Genome Size Diversity and Evolution in Land Plants	307
	Ilia J. Leitch and Andrew R. Leitch	
20	Genome Size and the Phenotype	323
	Johann Greilhuber and Ilia J. Leitch	
Index		345