The Evolution of the Genome

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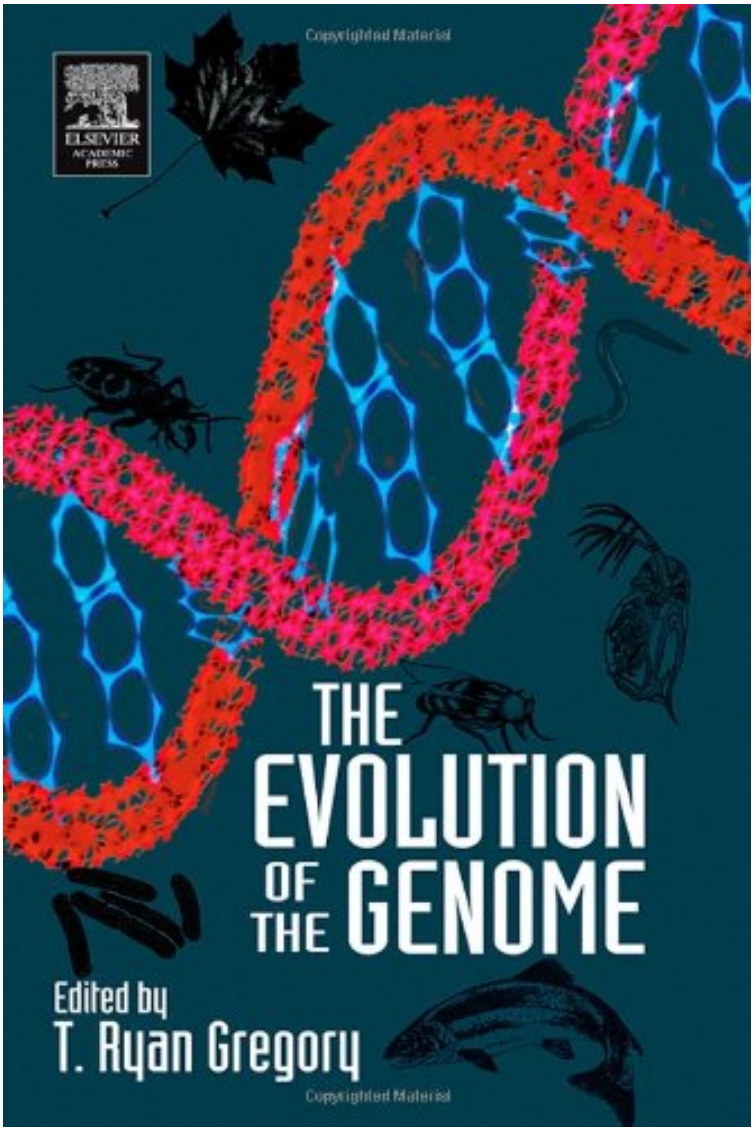

#2890200 in Books 2005-01-05Original language:EnglishPDF # 1 9.21 x 1.63 x 6.14l, 2.26 #File Name: 0123014638768 pages | File size: 66.Mb

From Academic Press : The Evolution of the Genome before purchasing it in order to gage whether or not it would be worth my time, and all praised The Evolution of the Genome:

4 of 4 people found the following review helpful. An incredible resource.By B. HarrisThis book, edited by T. Ryan Gregory is fantastic.At 740 pages, TEotG provides an extensive overview of current genome biology that, while technical, remains enjoyable. The book is aimed for the grad. student/post doctoral fellow, i.e. those who already have a very strong understanding of biology and genetics, but I (a biology undergrad) really did not find it overly technical. To be sure, this isn't a quick weekend read, but Gregory and the many other authors are able to synthesize a huge

amount of material into a manageable and enjoyable read. This book cleared up many misconceptions I had, and of course everyone will learn something entirely new from it. Highly recommended.Oh, and the pages are glossy, and the cover is very nice. It looks good on the coffee table!3 of 3 people found the following review helpful. Genome EvolutionBy Mandrioli MauroThe book written by Gregory is a powerful tool for those interested in genome evolution. In particular, the book review an huge amount of published papers regarding the genome size and the nature and organization of DNA sequences that are generally involved in genome size increase during evolution. I strongly suggest this book to all readers interested in evolution at a molecular level since it introduce and guide the readers to the discovery of what happen to genome during evolution. The unique negative aspects is that is not consider at all the evolution of the cis-regulatory networks that represents an intriguing aspect of the genome evolution, but this is not surprising considering that other books are available on this topic.

The Evolution of the Genome provides a much needed overview of genomic study through clear, detailed, expert-authored discussions of the key areas in genome biology. This includes the evolution of genome size, genomic parasites, gene and ancient genome duplications, polypoidy, comparative genomics, and the implications of these genome-level phenomena for evolutionary theory. In addition to reviewing the current state of knowledge of these fields in an accessible way, the various chapters also provide historical and conceptual background information, highlight the ways in which the critical questions are actually being studied, indicate some important areas for future research, and build bridges across traditional professional and taxonomic boundaries. The Evolution of the Genome will serve as a critical resource for graduate students, postdoctoral fellows, and established scientists alike who are interested in the issue of genome evolution in the broadest sense.Provides detailed, clearly written chapters authored by leading researchers in their respective fieldsPresents a much-needed overview of the historical and theoretical context of the various areas of genomic studyCreates important links between topics in order to promote integration across subdisciplines, including descriptions of how each subject is actually studiedProvides information specifically designed to be accessible to established researchers, postdoctoral fellows, and graduate students alike

"Gregory provides an impressive overview of the key areas in genome biology, such as the evolution of genome size in animals and plants, polyploidy, the evolution of genomic parasites, and comparative genomics in eukaryotes and prokaryotes as well...the reading flows in a very enjoyable way. Gregory and his sixteen co-authors ask endless questions on large-scale evolutionary phenomena - and they answer them all: How common is polyploidy in plants, and how is it linked with animals, i.e. with attacking herbivores? What are B Chromosomes, how widely are they distributed and where are they derived from? How did genomes originate? What is a procaryotic species? And so forth. In a word: Wherever one opens this well written book, he will read it with great pleasure." --Weane Kimblewood in LAB TIMES "The Evolution of the Genome provides a much needed overview of genmoic study through clear, detailed, expert-authored discussions of the key areas in genome biology." --BIOWORLD, 2006 "The Evolution of the Genome by Ryan Gregory and his co-authors is one of the most exciting books on large-scale evolutionary phenomena I have read in the past decade." --Robert L. Carroll, Redpath Museum, McGill University "Availability of complete genomic sequences has begun to revolutionize many areas within and even outside Biology. This book provides the essential grammar to students and experts alike toward understanding the language of genomes." --Juergen Brosius, University of Munster, Germany "A very useful book for my evolutionary genetics classes." --Leo W. Beukeboom, University of Groningen, The Netherlands "Ryan Gregory sees the genome as a distinct level of biological organization. To Gregory and his collaborators in The Evolution of the Genome, the genome has its own internal structures and interactions among its parts. This is a dynamic way of looking at the genome, and one that suggests solutions to many problems--such as why some kinds of organisms have much larger genomes than others. In recognizing the hierarchical organization of the genome itself, Gregory has pioneered the analysis of how the genome fits into the broader aspects of biological organization and evolution. The Evolution of the Genome is an indispensable source on current understanding of genomic evolution." --Niles Eldredge, The American Museum of Natural History, New York, New York "Gregory has arranged the chapters in a logical sequence, to facillitate a reading straight-through and while maintaining a loose association between them, each contribution is reasonably self-contained, to enable brief consultations...The chapters contain extensive references to guide the reader to further research. There are adequate tables, graphs, plots and illustrative matter to enrich the text. This book is recommended for academic collections supporting research programs in genetics, bioscience, microbiology and the like. This book will appeal to graduate students, looking for grounding in this area and to scientists exploring related research." --Peggy Dominy in E-STREAMSFrom the Back CoverThe Evolution of the Genome provides a much needed overview of genomic study through clear, detailed, expert-authored discussions of the key areas in genome biology. This includes the evolution of genome size, genomic parasites, gene and ancient genome duplications, polypoidy, comparative genomics, and the implications of these genome-level phenomena for evolutionary theory. In addition to reviewing the current state of knowledge of these fields in an accessible way, the various chapters also provide historical and conceptual background information, highlight the ways in which the critical questions are

actually being studied, indicate some important areas for future research, and build bridges across traditional professional and taxonomic boundaries. The Evolution of the Genome will serve as a critical resource for graduate students, postdoctoral fellows, and established scientists alike who are interested in the issue of genome evolution in the broadest sense.About the AuthorDr. T. Ryan Gregory completed his Ph.D. in evolutionary biology and zoology at the University of Guelph in Ontario, Canada in 2002. He has been the recipient of several prestigious scholarships and fellowships, and was named the winner of the 2003 Howard Alper Postdoctoral Prize by the Natural Sciences and Engineering Research Council of Canada, one of the nation's premiere research awards. He has been a postdoctoral fellow at the American Museum of Natural History in New York and the Natural History Museum in London, England.