Reading the Story in DNA: A Beginner's Guide to Molecular Evolution

Lindell Bromham
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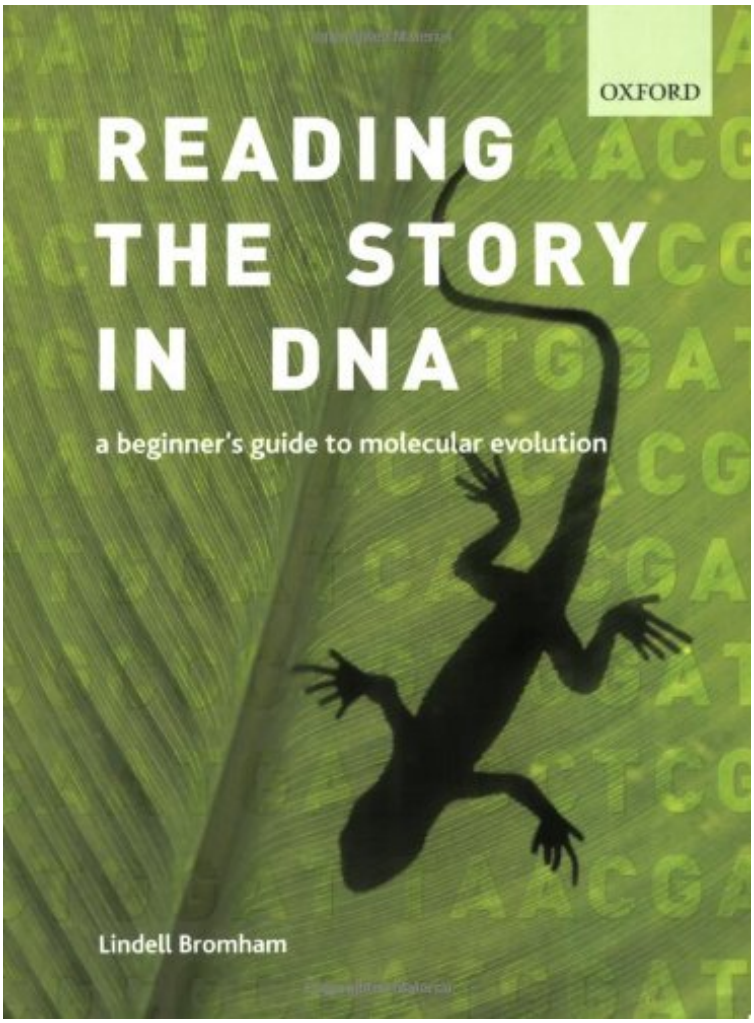

#1573437 in Books 2008-10-01Ingredients: Example IngredientsOriginal language:EnglishPDF # 1 7.40 x .70 x 9.60l, 1.82 #File Name: 0199290911368 pages | File size: 55.Mb

Lindell Bromham : Reading the Story in DNA: A Beginner's Guide to Molecular Evolution before purchasing it in order to gage whether or not it would be worth my time, and all praised Reading the Story in DNA: A Beginner's Guide to Molecular Evolution:

2 of 2 people found the following review helpful. An excellent book for beginnersBy Cynthia GibasI teach bioinformatics courses in a program that admits students with diverse backgrounds. This book is an excellent way to get students with little biology background up to speed in molecular evolution. It gives a practical context for commonly used algorithms. The examples are modern and relevant. I have handed my copy off to graduate students who need to do some self-education to catch up and those who have read it have found it very useful. I think it would

also make a pretty decent textbook for an undergraduate course in molecular sequence analysis, especially because it includes concepts of population genetics and variation that are often left out of sequence analysis texts written from the algorithmic perspective.8 of 9 people found the following review helpful. ExcellentBy R.M.T.This has been a great book for me since I am just starting out in learning about Genetics and Molecular Evolution. It explains it all without the math. I would recommend it to anyone who needs the explanation before applying the math

The world is full of DNA. The salad in your sandwich, the pollen in the air, even the dirt on your shoes contains DNA from which a vast amount of information can be gained, including the identification of individuals and species, the structure and distribution of populations, the origins of lineages, and the pace and mechanisms of evolutionary change. Reading the story in DNA is a beginner's guide to molecular evolution, and is the perfect companion on the journey to a proper understanding of molecular data. The central theme of the book is that in order to get ecological or evolutionary information out of molecular data, you must understand the way that the molecular data evolves and the influence that the assumptions you make have on the answers you get. The book blends beautifully clear explanations with cutting-edge examples from the research literature, drawing on the fields of biodiversity, conservation biology, epidemiology, phylogeography, evolutionary development, and ancient DNA to explore topics such as molecular evolutionary theory, phylogenetics, molecular clocks, detecting selection and recombination, and identifying individuals from molecular data. Technical detail is set apart from the main text, allowing the student to approach the material in different ways: read only the text and skip the finer details, use the text to understand the technical details or vice versa, or identify key case studies and read the concepts and methods particular to that case. Features - The first text to make the use of molecular data in whole organism biology truly accessible to students- Engaging yet highly informative writing style captures the author's genuine and infectious passion for her subject - Stunning full color presentation is the perfect complement to the author's written prose - Blends clear, straightforward explanations with cutting-edge case studies: there is no sacrifice of content for the sake of accessibility - Avoids mathematical and statistical detail to focus on the conceptual basis of molecular analysis- Unique combination of text, technical information, and case studies enables flexible use in whatever way works for the reader - Online Resource Centre features additional resources for both lecturers and students. For instructors, the Online Resource Centre features: figures from the book in electronic format, ready to download and tutorial exercises and practical projects. For students, the website offers: annotated weblinks, a flashcard glossary, topical updates, and links to relevant journal articles and websites that describe advancements in the field since the book's publication.

`It has a clear niche of its own, as promised in the initial proposal. Students will love it, yet level of understanding is as deep as needed for research students. It's an excellent book. ' Dr Timothy G. Barraclough, Division of Biology, Imperial College London`There are good texts that deal with more advanced ideas in this area but these are way too advanced for the typical 1st/2nd year undergraduate. This serves as an excellent bridge. ' Dr Matthew R Goddard, School of Biological Sciences, University of Auckland, New ZealandAbout the AuthorLindell Bromham is a senior lecturer in the School of Botany and Zoology at The Australian National University.