

ists and advocates of intelligent design are without foundation. In an ideal world, this should not be necessary (physical scientists do not have to defend atoms and molecules against believers in the Aristotelian continuum) but, unfortunately, religious antagonism to evolution still has a strong hold in the U.S. My only complaint is that at times there seems to be an excessive amount of detail for a general textbook. Despite an introduction that rightly urges students to absorb general principles and not just learn piles of facts, there are an awful lot of facts and terminology to be learned. Instructors may need to guide students through the trees so that they can see the wood when they emerge.

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READING THE STORY IN DNA: A BEGINNER'S GUIDE TO MOLECULAR EVOLUTION.

By Lindell Bromham. Oxford and New York: Oxford University Press. \$39.95 (paper). xv + 368 p.; ill.; index. ISBN: 978-0-19-929091-8. 2008.

This is a thoroughly engaging beginner's textbook on molecular evolution. Bromham's use of modern, colorful examples rather than equations will capture both the attention and the imagination of readers, providing a clear and thorough introduction into a highly sophisticated field without requiring advanced mathematical knowledge. The volume is separated into nine chapters, beginning with the history of DNA and working through experimental techniques to isolate and identify DNA data, the types of data that can be isolated, and how those data can be used to understand how the world works. As the text progresses, Bromham introduces individuals, her "Heroes of the Genetic Revolution," whose work has been pivotal in progressing the field of molecular evolution.

Although the approach to pedagogy could be more linear, the choose-your-own-adventure style of reading imparted by the abundance of insets, techboxes, cross-references, and case studies serves to tie together the various concepts introduced in each chapter. The result is an entertaining yet scientifically concise overview of the history, evolution, and state-of-the-art techniques of molecular evolutionary research. To achieve this, the author steers clear of technical details within the main text, and instead describes each concept with carefully chosen examples from recent advances in developmental biology, conservation genetics, infectious disease dynamics, and ancient DNA. The technical details are not entirely avoided, and readers interested in such can find additional information both in the techboxes and in the reference lists provided at the end of each

chapter. There is also an online resource center where additional exercises, computer practicals, and a detailed glossary of terms can be found, along with downloadable high-resolution figures for use in teaching.

This book is probably too simple to be appropriate for an advanced molecular evolution course, but it fills a particular niche that has until now been vacant. In my opinion, this volume is ideal for instructors looking for a clearly written textbook that makes evolution and genetics approachable by nonscientists, or even for introductory-level biologists who may be put off by too much technical detail.

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IN THE LIGHT OF EVOLUTION, VOLUME II: BIODIVERSITY AND EXTINCTION. *Based on a colloquium held in Irvine, California, 7–8 December 2007.*

Edited by John C. Avise, Stephen P. Hubbell, and Francisco J. Ayala. Washington (DC): National Academies Press. \$69.50 (hardcover and PDF); \$59.00 (hardcover); \$45.50 (PDF). xvii + 414 p.; ill.; index. ISBN: 978-0-309-10405-0 (hc); 978-0-309-66786-9 (PDF). 2008.

Like partners locked in an eternal dance, sometimes fast, sometimes slow, origination the lead and extinction the follow, evolution has moved across the ecological dance floor of Earth for three and a half billion years giving us a staggering array of millions of species. Everything, however, has changed. For the first time in Earth's history, one species, our own, consumes more than one-quarter of terrestrial primary production, impounds six times more water than runs free, fixes twice as much atmospheric nitrogen than occurs naturally, and has moved more terrestrial surface material than geological processes do in 500 million years. Add climate change, habitat fragmentation, biotic exchange, and emerging diseases to the mix, and it is no wonder that extinction is now reeling wildly and origination has no hope of keeping pace.

Volume II of *In the Light of Evolution*, edited by John Avise, Stephen Hubbell, and Francisco Ayala, three senior and prominent researchers, has gathered contributions from 48 leading ecological and evolutionary scientists to review extinction. Although some parts are a tad technical, the chapters are generally well written and will be accessible to scientifically literate readers. Chapters vary from that of eloquent outrage (e.g., Jackson on the Brave New Ocean) to eclectic (Dobson et al. who openly ponder whether the world's loss of parasites is only a tragedy for parasitologists) to brilliant exposition (e.g., Donoghue's elegant review of the complex idea of phylogenetic niche conser-