Early Life: Evolution On The Precambrian Earth

Lynn Margulis, Michael Dolan
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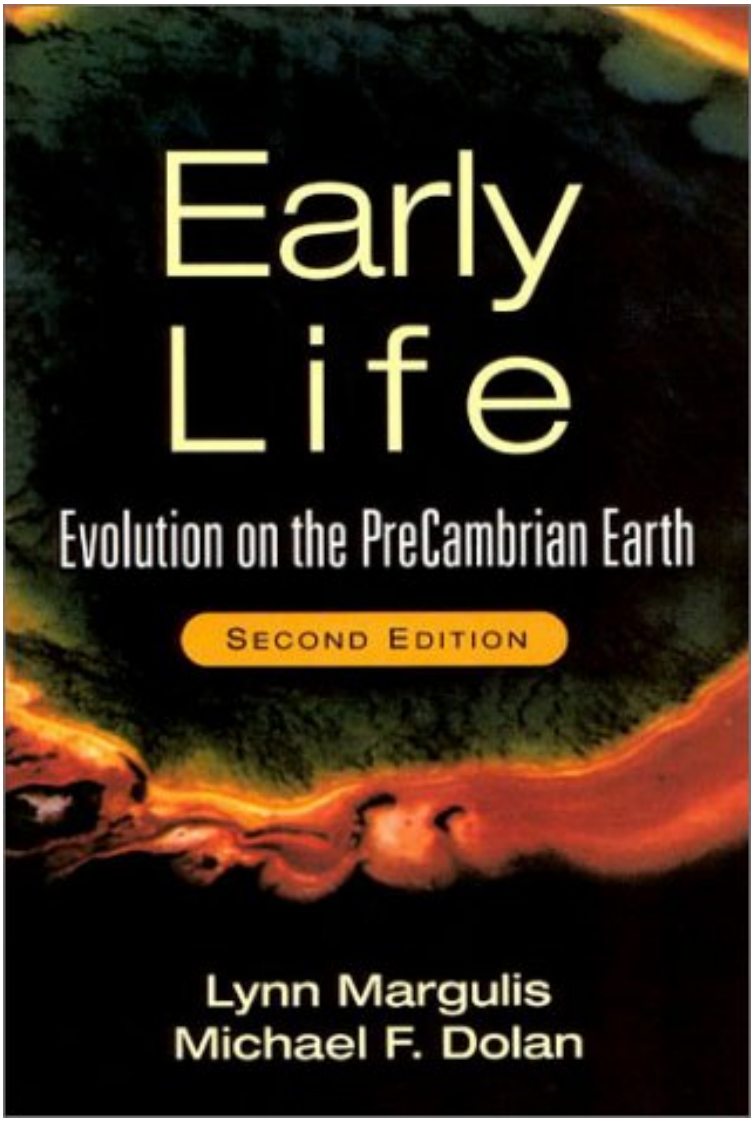

#781088 in Books Jones n Bartlett Learning 2002-01-13Original language:EnglishPDF # 1 9.00 x .41 x 7.14l, .57 #File Name: 0763714631168 pages | File size: 52.Mb

Lynn Margulis, Michael Dolan : Early Life: Evolution On The Precambrian Earth before purchasing it in order to gage whether or not it would be worth my time, and all praised Early Life: Evolution On The Precambrian Earth:

37 of 38 people found the following review helpful. Margulis at her best -- but a missed opportunityBy Frank DeisI wish this book were available as a normal paperback. I really like nearly everything about it. Understanding Margulis on the origin of Meiosis is so much easier with line drawings! If you are interested in Margulis's ideas about the serial endosymbiont theory and how the eukaryotic cell arose, it's hard to do better than "Early Life." The clarity of this book is wonderful. Why a "missed opportunity"? Despite the fact that this is a new edition with Michael F. Dolan, the

science appears not to have been updated. For example, Margulis thought an "aggressive" bacterium such as Bdellovibrio might have invaded cells to form mitochondria. Genomic research has shown that mitochondria came from a Rickettsia species. In illustrations, Bdellovibrio is still shown and the Rickettsia connection is not mentioned. Does Margulis completely reject evidence from nucleic acid sequencing?Evidently -- because the biggest "hole" in this book is a complete lack of recognition that the Archaea are something completely different from Bacteria. Margulis makes a friendly mention of Carl Woese in the introduction of the new edition, as if his research were the only stone in the massive structure that shows Archaea are a separate domain of life. It is not just the rRNA's that are different (as Woese showed) -- the membrane lipids are different, the Archaea have histones (like eukaryotes) and some have multiple chromosomes (like eukaryotes). Lumping them with other "prokaryotes" in spite of the current state of science is nothing less than a willful act of ignorance, and it's too bad that this book is damaged by her prejudices. I hope some day that a third edition will include modern scientific discoveries. And I hope that some day her "Five Kingdoms" will be updated to "Six." But somehow I doubt it will happen.2 of 2 people found the following review helpful. Great first book on the most poplar theory of how life began on earthBy MehetabelleThis is a seminal book about one theory of the origin of life on earth (there are at least 4 other credible theories). Lynn Margulis was the first to propose the theory of endo-symbiosis which gave every cell mitochondria. Now, 30 years later, we know the vital role of the micro-organisms in our gut, they are also symbionts, that enable us to extract nutrition from food and who likely perform other functions that are vital to good health. This short, illustrated book is easy to read and understand.3 of 3 people found the following review helpful. Great, well worth the Price-But Non Biology Techies BewareBy Barry D. BrownThis book follows the Margulis tradition of clarity. Margulis, ably co-authored by Dolan begins in the Archean Eon, 3.9 billion years ago and explains how first, bacteria and then, nucleated cells evolved into the multitude of complex plants and animals that first appear in the Cambrian period and whose descendants continue to today. The evolution process from simple bacterial prokaryotic (no nucleus) cell to complex eukaryotic (with a nucleus) cell is explained mainly by symbiogenesis and less so by spontaneous mutations and the Darwinian "survival of the fittest"--a theory Margulis has championed for years and which I fervently believe is correct, but which is still disputed by many orthodox biologists. The text and diagrams are clear but this book is definitely college level.Barry D. Brown

This new edition offers an informative and compelling analysis of microbial evolution, including new discoveries from the past two decades.