

Phylogenomics

A PRIMER

Phylogenomics: A Primer is for advanced undergraduate and graduate biology students studying molecular biology, comparative biology, evolution, genomics, and biodiversity. It explores the origins of organic life on the planet, examines the use of scientific databases to understand the function of proteins within organisms, and provides insight into the interpretation of linear sequence information in the context of organismal change. This book explains the essential concepts underlying the storage and manipulation of genomics level data, construction of phylogenetic trees, population genetics, natural selection, the tree of life, DNA barcoding, and metagenomics. The inclusion of problem-solving exercises in each chapter provides students with a solid grasp of the important molecular and evolutionary questions facing modern biologists as well as the tools needed to answer them. Online exercises are also available to assist students in working with the programs and databases used to analyze phylogenomic data.

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