

Packed with eye-catching photos and images, this text shows and tells the fascinating story of life on Earth, and engages readers with hands-on activities that encourage critical thinking. Chapter opening Learning Roadmaps help you focus on the topics that matter most and section-ending Take Home Messages reinforce key concepts. Helpful in-text features include a running glossary, case studies, issue-related essays, linked concepts, self-test questions, data analysis problems, and more. Known for a clear, accessible style, BIOLOGY: THE UNITY AND DIVERSITY OF LIFE, 14th Edition puts the living world of biology under a microscope for readers from all walks of life to analyze, understand, and enjoy! Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Cladistics-David M. Williams 2020-07-31

This new edition of a foundational text presents a contemporary review of cladistics, as applied to biological classification. It provides a comprehensive account of the past fifty years of discussion on the relationship between classification, phylogeny and evolution. It covers cladistics in the era of molecular data, detailing new advances and ideas that have emerged over the last twenty-five years. Written in an accessible style by internationally renowned authors in the field, readers are straightforwardly guided through fundamental principles and terminology. Simple worked examples and easy-to-understand diagrams also help readers navigate complex problems that have perplexed scientists for centuries. This practical guide is an essential addition for advanced undergraduates, postgraduates and researchers in taxonomy, systematics, comparative biology, evolutionary biology and molecular biology.

Taxonomy and Plant Conservation-Etelka Leadlay 2006-01-19

Highlights the key role played by taxonomy in the conservation and sustainable utilisation of plant biodiversity.

How to Approach Learning-Fiona McPherson

Academic success is rooted in a number of factors, of which 'intelligence' is only one. Attitude and beliefs, and knowledgeable strategy use, are critical. This is the core message of this collection of articles and research reports on study skills from the author's websites, arranged and edited for greater cohesiveness. Its aim is to describe and provide evidence for concepts and strategies that may change your approach to teaching or studying. The book contains articles on: * personal factors that affect academic achievement: motivation, persistence, anxiety, intelligence, self-regulation * choosing strategies that are effective for the situation * what 'transfer' is and why it's important * how experts develop expertise * the idea of 'desirable difficulties' * the limits of memorization and rote learning * some useful strategies in: * reading * note-taking * reaching understanding. This book is for students who are serious about being successful in study, and teachers who want to know how best to help their students learn. As always with the Mempowered books, the short book is fully referenced. Keywords: best study strategies for college students, effective study habits, effective learning, study attitudes, educational research, teacher resources

Inside Biological Taxonomy-Verity Miller 2021-12-15

The natural world is wild, but there's order to it too. To understand biological diversity, scientists arrange organisms into groups, a science called taxonomy. This absorbing volume looks at the ways people have tried to classify the living world over the centuries with a spotlight on the contributions of Carolus Linnaeus, whose system includes the now-famous categories of kingdom, phylum, class, order, family, genus, and species. The accessible text also explains how the science is changing with our developing knowledge of genetics. With millions of species yet to be discovered, the field of taxonomy will continue to tell us how organisms fit into the tree of life.

The Timetree of Life-S. Blair Hedges 2009-04-23

The evolutionary history of life includes two primary components: phylogeny and timescale. Phylogeny refers to the branching order (relationships) of species or other taxa within a group and is crucial for understanding the inheritance of traits and for erecting classifications. However, a timescale is equally important because it provides a way to compare phylogeny directly with the evolution of other organisms and with planetary history such as geology, climate, extraterrestrial impacts, and other features. The Timetree of Life is the first reference book to synthesize the wealth of information relating to the temporal component of phylogenetic trees. In the past, biologists have relied exclusively upon the fossil record to infer an evolutionary timescale. However, recent revolutionary advances in molecular biology have made it possible to not only estimate the relationships of many groups of organisms, but also to estimate their times of divergence with molecular clocks. The routine estimation and utilization of these so-called 'time-trees' could add exciting new dimensions to biology including enhanced opportunities to integrate large molecular data sets with fossil and biogeographic evidence (and thereby foster greater communication between molecular and traditional systematists). They could help estimate not only ancestral character states but also evolutionary rates in numerous categories of organismal phenotype; establish more reliable associations between causal historical processes and biological outcomes; develop a universally standardized scheme for biological classifications; and generally promote novel avenues of thought in many arenas of comparative evolutionary biology. This authoritative reference work brings together, for the first time, experts on all major groups of organisms to assemble a timetree of life. The result is a comprehensive resource on evolutionary history which will be an indispensable reference for scientists, educators, and students in the life sciences, earth sciences, and molecular biology. For each major group of organism, a representative is illustrated and a timetree of families and higher taxonomic groups is shown. Basic aspects of the evolutionary history of the group, the fossil record, and competing hypotheses of relationships are discussed. Details of the divergence times are presented for each node in the timetree, and primary literature references are included. The book is complemented by an online database (www.timetree.net) which allows researchers to both deposit and retrieve data.

Introduction to Physical Anthropology, Loose-Leaf Version-Robert Jurmain 2017-01-27

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