DESCRIPTION

Paleoecology is a discipline that uses evidence from fossils to provide an understanding of ancient environments and the ecological history of life through geological time. This text covers the fundamental approaches that have provided the foundation for present paleoecological understanding, and outlines new research areas in paleoecology for managing future environmental and ecological change. Topics include the use of actualism in paleoecology, development of paleoecological models for paleoenvironmental reconstruction, taphonomy and exceptional fossil preservation, evolutionary paleoecology and ecological change through time, and conservation paleoecology. Data from studies of invertebrates, vertebrates, plants and microfossils, with added emphasis on bioturbation and microbial sedimentary structures, are discussed. Examples from marine and terrestrial environments are covered, with a particular focus on periods of great ecological change, such as the Precambrian-Cambrian transition and intervals of mass extinction.

Readership: This book is designed for advanced undergraduates and beginning graduate students in the earth and biological sciences, as well as researchers and applied scientists in a range of related disciplines.

ABOUT THE AUTHOR

David J. Bottjer is Professor of Earth Sciences, Biological Sciences, and Environmental Studies at the University of Southern California. He is a Fellow of The Paleontological Society, the Geological Society of America, and the American Association for the
Advancement of Science, and is an Editor-in-Chief for the journal, *Palaeogeography, Palaeoclimatology, Palaeoecology*. In 2014 he was awarded the Raymond C. Moore Medal for excellence in paleontology by the SEPM Society for Sedimentary Geology.

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