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in Ichnology; 10.5. Ichnology as a Historical Product; Acknowledgments; References; Chapter 2: Ichnotaxonomy: Finding Patterns in a Welter of Information; 1. Introduction; 2. Observing Trace Fossils; 3. Describing Trace Fossils; 4. Stratigraphic Classifications; 4.1. Substrate Consistency; 4.2. Toponymic Classification; 5. Biological Classifications; 5.1. Phylogenetic Classification; 5.2. Ecological Classifications; 6. Ethological Classification; 6.1. Resting Traces (Cubichnia); 6.2. Dwelling Traces (Domichnia); 6.3. Locomotion Traces (Repichnia); 6.4. Grazing Traces (Pascichnia); 6.5. Feeding Traces (Fodinichnia); 6.6. Farming Traces (Agrichnia); 6.7. Escape Traces (Fugichnia); 6.8. Brooding Traces (Calichnia); 6.9. Other Ethological Categories; 6.10. Overlapping Functions; 7. Systematic Classification; 7.1. International Code of Zoological Nomenclature; 7.2. A Brief History of Ichnotaxonomy; 7.3. The Mechanics of Naming New Ichnospecies and Ichnogenera; 7.4. Diagnosis and Description; 7.5. Ichnofamilies and higher Ichnotaxa; 7.6. Ichnosubspecies and other Subdivisions; 7.7. Exceptional Cases; 7.8. Beyond Systematics; 8. Conclusions; Acknowledgments; References; Chapter 3: Trace-Fossil Systematics; 1. Introduction; 2. Need of a Robust Ichnotaxonomy and Trace-Fossil Classification; 3. A Newly Proposed Nomenclature Key; 3.1. Purpose and Advantages; 3.2. Structure of the Key and Challenges; 3.3. Data Analysis; 4. Way Forward; 5. Conclusions; Acknowledgments; References; Chapter 4: The Ichnofacies Paradigm; 1. Introduction; 1.1. Rise of the Ichnofacies Concept

Sommario/riassunto

Integration of ichnological information into sedimentological models, and vice versa, is one of the main means by which we can improve our understanding of ancient depositional environments. Mainly intended for sedimentologists, this book aims to make ichnological methods as part of facies interpretation more popular, providing an analytical review of the ichnology of all major depositional environments and the use of ichnology in biostratigraphic and sequence stratigraphic analysis. It starts with an introduction to the historical aspect of ichnology, introducing common concepts an
