Record Nr. UNINA9910770254803321 Tracking Environmental Change Using Lake Sediments: Volume 6 / / **Titolo** Eric Capo, Cecilia Barouillet, and John P. Smol, editors Pubbl/distr/stampa Cham, Switzerland:,: Springer,, [2023] ©2023 **ISBN** 9783031437991 Edizione [First edition.] Descrizione fisica 1 online resource (450 pages) Developments in Paleoenvironmental Research Series; Volume 21 Collana Disciplina 551.482 Soggetti Paleolimnology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Monografia Livello bibliografico Nota di bibliografia Includes bibliographical references and index. Chapter 1. USING LAKE SEDIMENTARY DNA TO RECONSTRUCT Nota di contenuto BIODIVERSITY CHANGES -- Chapter 2. THE SOURCES AND FATES OF LAKE SEDIMENTARY DNA -- Chapter 3. THE SEDIMENTARY ANCIENT DNA WORKFLOW -- Chapter 4. BACTERIAL AND ARCHAEAL DNA FROM LAKE SEDIMENTS -- Chapter 5. CYANOBACTERIAL DNA FROM LAKE SEDIMENTS -- Chapter 6. PROTIST DNA FROM LAKE SEDIMENTS --Chapter 7. DIATOM DNA FROM LAKE SEDIMENTS -- Chapter 8. AQUATIC VEGETATION DNA FROM LAKE SEDIMENTS -- Chapter 9. AQUATIC ANIMAL DNA FROM LAKE SEDIMENTS -- Chapter 10. TERRESTRIAL PLANT DNA FROM LAKE SEDIMENTS -- Chapter 11. TERRESTRIAL FAUNA AND HOMININ DNA FROM SEDIMENTARY ARCHIVES -- Chapter 12. AN OVERVIEW OF BIODIVERSITY AND NETWORK MODELING APPROACHES: APPLICATIONS TO SEDIMENTARY DNA RECORDS -- Chapter 13. PERSPECTIVES AND FUTURE DEVELOPMENTS WITHIN SEDIMENTARY DNA RESEARCH. Sommario/riassunto This book, entitled Tracking Environmental Change Using Lake Sediments: Volume 6 – Sedimentary DNA, provides an overview of the applications of sedimentary DNA-based approaches to paleolimnological studies. These approaches have shown considerable potential in providing information about the long-term changes of overall biodiversity in lakes and their watersheds in response to natural and anthropogenic changes, as well as tracking human migrations over

the last thousands of years. Although the first studies investigating the

preservation of these molecular proxies in sediments originate from the late-1990s, the number of scientific publications on this topic has increased greatly over the last five years. Alongside numerous ecological findings, several sedimentary DNA studies have been dedicated to understanding the reliability of this approach to reconstruct past ecosystem changes. Despite the major surge of interest, a comprehensive compilation of sedimentary DNA approaches and applications has yet to be attempted. The overall aim of this DPER volume is to fill this knowledge gap.