Record Nr. UNINA9910463104503321 Bone histology of fossil tetrapods [[electronic resource]]: advancing **Titolo** methods, analysis, and interpretation / / edited by Kevin Padian, Ellen-Therese Lamm Berkeley, : University of California Press, c2013 Pubbl/distr/stampa **ISBN** 0-520-95511-0 Descrizione fisica 1 online resource (298 p.) Altri autori (Persone) PadianKevin LammEllen-Therese <1966-> 566 Disciplina Soggetti Vertebrates, Fossil - Microstructure Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references. Nota di contenuto Front matter -- Contents -- Preface -- Authors and Contributors -- 1. Why Study the Bone Microstructure of Fossil Tetrapods? -- 2. The Biology of Bone -- 3. Selection of Specimens -- 4. Preparation and Sectioning of Specimens -- 5. Image Standardization in Paleohistology -- 6. Database Standardization -- 7. Skeletochronology -- 8. Analysis of Growth Rates -- 9. Evolution of Growth Rates and Their Implications -- 10. Research Applications and Integration -- LITERATURE CITED The microscopic examination of fossilized bone tissue is a Sommario/riassunto sophisticated and increasingly important analytical tool for understanding the life history of ancient organisms. This book provides an essential primer and manual for using fossil bone histology to investigate the biology of extinct tetrapods. Twelve experts summarize advances in the field over the past three decades, reviewing fundamental basics of bone microanatomy and physiology. Research specimen selection, thin-section preparation, and data analysis are addressed in detail. The authors also outline methods and issues in bone growth rate calculation and chronological age determination, as

well as how to examine broader questions of behavior, ecology, and

evolution by studying the microstructure of bone.