1. Record Nr. UNINA9910826009203321

Titolo	Biodiversity response to climate change in the middle Pleistocene : the Porcupine Cave fauna from Colorado / / edited by Anthony D. Barnosky
Pubbl/distr/stampa	Berkeley, : University of California Press, c2004
ISBN	1-282-75928-0 9786612759284 0-520-93085-1 1-59734-496-6
Edizione	[1st ed.]
Descrizione fisica	1 online resource (409 p.)
Altri autori (Persone)	BarnoskyAnthony D
Disciplina	560/.1792
Soggetti	Vertebrates, Fossil - Colorado - Park County Paleontology - Pleistocene Paleoecology - Colorado - Park County Paleoecology - Pleistocene Biodiversity - Climatic factors - Colorado - Park County - History Animals, Fossil - Colorado - Park County
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. 347-370) and index.
Nota di contenuto	Front matter -- Contents -- Preface -- Acknowledgments -- Chapter Appendixes -- Figures -- Tables -- Abbreviations and Definitions -- One. Climate Change, Biodiversity, and Ecosystem Health: The Past as a Key to the Future -- Two. The Pleistocene Fossils of Porcupine Cave, Colorado: Spatial Distribution and Taphonomic Overview -- Three. The Modern Environment, Flora, and Vegetation of South Park, Colorado -- Four. The Historical Context of Porcupine Cave: American Indians, Spaniards, Government Surveyors, Prospectors, Ranchers, Cavers, and Paleontologists in South Park, Colorado -- Five. The Geology and Speleogenesis of Porcupine Cave -- Six. Magnetostratigraphic Constraints on the Age of Pleistocene Fossiliferous Strata in Porcupine Cave's DMNH Velvet Room Excavation -- Seven. Age and Correlation of Key Fossil Sites in Porcupine Cave -- Eight. Biology of Wood Rats as Cave Dwellers and Collectors -- Nine. Paleopathology and Taphonomic Modification of Mammalian Bones from Porcupine Cave -- Ten. A

Summary of Fossilized Species in Porcupine Cave -- Eleven. Synopsis of the Herpetofauna from Porcupine Cave -- Twelve. The Early and Middle Pleistocene Avifauna from Porcupine Cave -- Thirteen. The Carnivora from Porcupine Cave -- Fourteen. Middle Pleistocene (Irvingtonian) Ochotona (Lagomorpha: Ochotonidae) from Porcupine Cave -- Fifteen. Leporidae of the DMNH Velvet Room Excavations and Mark's Sink -- Sixteen. Identification of Miscellaneous Mammals from the Pit Locality: Including Soricidae, Leporidae, Geomyoidea -- Seventeen. Systematics and Faunal Dynamics of Fossil Squirrels from Porcupine Cave -- Eighteen. Fossil Wood Rats of Porcupine Cave: Tectonic or Climatic Controls? -- Nineteen. Arvicoline Rodents from Porcupine Cave: Identification, Spatial Distribution, Taxonomic Assemblages, and Biochronologic Significance -- Twenty. Pliocene and Pleistocene Horses from Porcupine Cave -- Twenty-One. Pleistocene (Irvingtonian) Artiodactyla from Porcupine Cave -- Twenty-Two. Irvingtonian Mammals from the Badger Room in Porcupine Cave: Age, Taphonomy, Climate, and Ecology -- Twenty-Three. Faunal Dynamics of Small Mammals through the Pit Sequence -- Twenty-Four. Stable Carbon and Oxygen Isotope Analysis of Marmot Cheek Teeth from the Pit Locality -- Twenty-Five. Assessing the Effect of Middle Pleistocene Climate Change on Marmota Populations from the Pit Locality -- Twenty-Six. Effect of Climate Change on Terrestrial Vertebrate Biodiversity -- Literature Cited -- Contributors -- Index

Sommario/riassunto

This book chronicles the discovery and analysis of animal fossils found in one of the most important paleontological sites in the world-Porcupine Cave, located at an elevation of 9,500 feet in the Colorado Rocky Mountains. With tens of thousands of identified specimens, this site has become the key source of information on the fauna of North America's higher elevations between approximately 1 million and 600,000 years ago, a period that saw the advance and retreat of glaciers numerous times. Until now, little has been understood about how this dramatic climate change affected life during the middle Pleistocene. In addition to presenting state-of-the-art data from Porcupine Cave, this study also presents groundbreaking analysis on what the data from the site show about the evolutionary and ecological adjustments that occurred in this period, shedding light on how one of the world's most pressing environmental concerns-global climate change-can influence life on earth.