

1. Record Nr.	UNINA9910797873203321
Titolo	Microbial life of cave systems // editor, Annette Summers Engel
Pubbl/distr/stampa	Berlin, Germany ; ; Boston, [Massachusetts] : , : De Gruyter, , [2015] ©2015
ISBN	3-11-033988-9 3-11-038952-5 9783110389524 (EPUB) 9783110339888 (PDF)
Descrizione fisica	1 online resource (xv, 335 pages) : illustrations (chiefly colour)
Collana	Life in extreme environments ; ; volume 3
Disciplina	578.75/84
Soggetti	Biospeleology Cave ecology Microbiology Cave animals Cave plants Underground ecology
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 at the end of each chapters and index.
Nota di contenuto	Front matter -- Preface -- Contents -- Contributing authors -- 1. Bringing Microbes into Focus for Speleology: An Introduction -- 2. Methods for Characterizing Microbial Communities in Caves and Karst: A Review -- 3. "A Grand, Gloomy, and Peculiar Place": Microbiology in the Mammoth Cave Region -- 4. Starving Artists: Bacterial Oligotrophic Heterotrophy in Caves -- 5. Bacterial and Archaeal Diversity on Cave Speleothem and Rock Surfaces: A Carbonate Cave Case Study from Kartchner Caverns -- 6. Microbial Slime Curtain Communities of the Nullarbor Caves -- 7. Microbial Diversity and Manganese Cycling: A Review of Manganese-oxidizing Microbial Cave Communities -- 8. Microbial Diversity and Ecology of Lava Caves -- 9. Predicting bacterial diversity in caves associated with sulfuric acid speleogenesis -- 10. Microbial Life in Unusual Cave Ecosystems Sustained by

Chemosynthetic Primary Production -- 11. The Microbiology of Show Caves, Mines, Tunnels, and Tombs: Implications for Management and Conservation -- 12. The Diversity and Ecology of Microbes Associated with Lampenflora in Cave and Karst Settings -- 13. Lascaux Cave: An Example of Fragile Ecological Balance in Subterranean Environments -- 14. Scientific Data Suggest Altamira Cave Should Remain Closed -- Index

Sommario/riassunto

The earth's subsurface contains abundant and active microbial biomass, living in water, occupying pore space, and colonizing mineral and rock surfaces. Caves are one type of subsurface habitat, being natural, solutionally- or collapse-enlarged openings in rock. Within the past 30 years, there has been an increase in the number of microbiology studies from cave environments to understand cave ecology, cave geology, and even the origins of life. By emphasizing the microbial life of caves, and the ecological processes and geological consequences attributed to microbes, this book provides the first authoritative and comprehensive account of the microbial life of caves for students, professionals, and general readers.
