

1. Record Nr.	UNINA9910409690703321
Titolo	Microbial Ecosystems in Central Andes Extreme Environments : Biofilms, Microbial Mats, Microbialites and Endoevaporites / / edited by María Eugenia Farías
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-36192-6
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (298 pages)
Disciplina	578.758
Soggetti	Microbial ecology Ecosystems Astrobiology Nature conservation Environmental education Microbial Ecology Nature Conservation Environmental and Sustainability Education Ecología microbiana Ecosistemes Llibres electrònics Andes
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
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Sommario/riassunto

The Central Andean Altiplane represents a unique extreme environment due to its high altitude, closed basins that modulate the salt pans and saline wetlands surrounded by deserts, as well as the considerable influence of volcanic activity. UV radiation, arsenic content, high salinity, alkalinity and low dissolved oxygen levels, together with extreme daily temperature fluctuations and oligotrophic conditions, shape an environment that resembles the early Earth and, even more, extraterrestrial conditions. By developing simple biofilms stratified microbial mats or complex microbialites, extreme microbial ecosystems, colonize and thrived in different environments like salt flats, wetlands, lakes volcano vents, geysers and deserts. This book presents our current understanding of these amazing ecosystems, providing a basis for their protection and sustainable utilization. The main audience for this book included researchers and graduate students as well as professionals working in the government, mining industry and similar activities.

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