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Nota di contenuto	Contents; Contributors; Preface; Ch 01: Diversity of Bacteria in Permafrost; Ch 02: Ecology and Taxonomy of Psychrotolerant Bacteria in Artificial Cold Environments; Ch 03: Psychrophilic Microorganisms In Marine Environments; Ch 04: Fungi in Cryosphere: Their Adaptations to Environments; Ch 05: Energy Metabolism at Low- temperature and Frozen Conditions in Cold-adapted Microorganisms; Ch 06: Proteins Involved in Cold Adaptation; Ch 07: Heat Shock Response in Psychrophilic Microorganisms; Ch 08: Catalysis and Protein Folding in Psychrophiles Ch 09: Psychrotolerant H <sub>2</sub> O <sub>2</sub> -resistant Bacteria and Environmental Adaptation of their Catalases Ch 10: Microorganisms in a Permafrost Ice Wedge and their Resuscitation-promoting Factors; Ch 11: Lipids in Cold-adapted Microorganisms; Index
Sommario/riassunto	Earth is dominated by low-temperature environments including 90% of oceans and 26% of terrestrial soil ecosystems. Once thought too cold for life, these environments have been shown to support diverse microbial communities. Psychrophiles use a wide variety of metabolic pathways, including photosynthesis, chemoautotrophy, and heterotrophy and form robust diverse communities. Cold-adapted microorganisms play a major role in nutrient turnover and primary biomass production in cold ecosystems and have important

applications in biotechnology and in the study of food spoilage  
microorganisms. In this

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