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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
