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	Nota di contenuto	Chapter1: Introduction -- Chapter2: Belowground microbial communities: A key players for soil and environmental Sustainability -- Chapter3: Methods for exploring soil microbial diversity -- Chapter4: Genomics based methods for microbial diversity analysis from soils.- Chapter5: Metaproteomics and metatranscriptomics for microbial communities profiling -- Chapter6: Bioinformatics tools for soil microbial community analysis -- Chapter7: Conclusion and future perspectives.
	Sommario/riassunto	This book explores the significance of soil microbial diversity to understand its utility in soil functions, ecosystem services, environmental sustainability, and achieving the sustainable development goals. With a focus on agriculture and environment, the book highlights the importance of the microbial world by providing

state-of-the-art technologies for examining the structural and functional attributes of soil microbial diversity for applications in healthcare, industrial biotechnology, and bioremediation studies. In seven chapters, the book will act as a primer for students, environmental biotechnologists, microbial ecologists, plant scientists, and agricultural microbiologists. Chapter 1 introduces readers to the soil microbiome, and chapter 2 discusses the below ground microbial world. Chapter 3 addresses various methods for exploring microbial diversity, chapter 4 discusses the genomics methods, chapter 5 provides the metaproteomics and metatranscriptomics approaches and chapter 6 details the bioinformatics tools for soil microbial community analysis, and chapter 7 concludes the text with future perspectives on further soil microbial uses and applications. .