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Soggetti	Biotic communities Evolution (Biology) Soil science Soil conservation Community & Population Ecology Evolutionary Biology Soil Science & Conservation Ecosystems
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di contenuto	Linking Aboveground-Belowground Ecology: A Short Historical Perspective -- Belowground Experimental Approaches for Exploring Aboveground-Belowground Patterns -- Modelling Aboveground-Belowground Interactions -- Intraspecific Plant-Soil Feedbacks Link Ecosystem Ecology and Evolutionary Biology -- Interactions Involving Rhizobacteria and Foliar-Feeding Insects -- Belowground-Aboveground Interactions Between Pathogens and Herbivores -- Soil Macro-Invertebrates- Their Impact on Plants and Associated Aboveground Communities in Temperate Regions -- The Feedback Loop Between Aboveground Herbivores and Soil Microbes via Deposition Processes -- Eco-Evolutionary Factors Driving Plant-Mediated Above-Belowground Invertebrate Interactions Along Elevation Gradients -- Cross-Compartment Herbivory Effects on Antagonists and Mutualists and Their Consequences for Plant Fitness -- Eco-Evolutionary Dynamics of Above- and Belowground Herbivores and

Invasive Plants -- Wei Huang, Evan Siemann, and Jianqing Ding -- Soil Biota As Drivers of Plant Community Assembly -- Application and Theory of Plant-Soil Feedbacks on Aboveground Herbivores -- Current Knowledge and Future Challenges of Aboveground and Belowground Community Ecology.

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Sommario/riassunto

Researchers now recognize that above- and belowground communities are indirectly linked to one another, often by plant-mediated mechanisms. To date, however, there has been no single multi-authored edited volume on the subject. This book remedies that gap, and offers state-of-the art insights into basic and applied research on aboveground-belowground interactions and their functional consequences. Drawing on a diverse pool of global expertise, the authors present diverse approaches that span a range of scales and levels of complexity. The respective chapters provide in-depth information on the current state of research, and outline future prospects in the field of aboveground-belowground community ecology. In particular, the book's goal is to expand readers' knowledge of the evolutionary, community and ecosystem consequences of aboveground-belowground interactions, making it essential reading for all biologists, graduate students and advanced undergraduates working in this rapidly expanding field. It touches on multiple research fields including ecology, botany, zoology, entomology, microbiology and the related applied areas of biodiversity management and conservation.

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