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Nota di contenuto	Part 1: Understanding Ecological Connectivity -- Chapter 1: Concepts, Measures, and Models for Assessing Connectivity -- Chapter 2: Species on the Move: Migration, Range Shifts, and Dispersal of Species -- Chapter 3: Do Saproxylic Species Need Habitats, Connectivity, or Connected Habitats? -- Chapter 4: The State of Forest Genetic Diversity: Anthropogenic Impacts and Conservation Initiatives -- Chapter 5: Genetic Connectivity and Local Adaptation of Forest Trees in the Face of Climate Change -- Chapter 6: Forest Ecosystems under Climate Change -- Chapter 7: Soil: The Foundation for Ecological Connectivity of Forest Ecosystems -- Part 2: Monitoring and Assessment Techniques -- Chapter 8: Monitoring Methods for the Protection of Connectivity in Forest Ecosystems -- Chapter 9: Monitoring Habitat Fragmentation and Biodiversity in Forest Ecosystems -- Chapter 10: Habitat Quality and Quantity: Features and Metrics -- Chapter 11: In Situ and Ex Situ Conservation Measures -- Chapter 12:

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Sommario/riassunto

This is an open access book. This professional volume provides scientific background and practical guidance on forest management in light of ecological connectivity. Readers will gain a great understanding of shifting species in response to climate change and the resulting loss of various resources. The main drivers of these variations are the quality of the availability, quantity, and quality of habitats in the landscape, the genetic diversity of species populations, and the ability to navigate through a fragmented landscape matrix. The connectivity of habitats is gaining importance in the combat of both, the biodiversity crisis and the climate change crisis. Improving ecological connectivity, however, does not automatically benefit all species, as the examples described in the book demonstrate. Specific planning tools, active monitoring protocols, and management measures are needed to increase the benefit for species with low dispersal and small population size, which generally fail to migrate. Assisted migration can help to prevent species extinction, but also offer opportunities for pathogens to cross geographical barriers. The vast majority of the known diversity of plants, fungi, vertebrates, and invertebrates depends on forest ecosystems. This volume helps to spread this message and prepare students for their later careers in the forestry sector, while also

informing active practitioners and policy makers. This is an open access book.
