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Titolo	Structure and Function of Mountain Ecosystems in Japan : Biodiversity and Vulnerability to Climate Change / / edited by Gaku Kudo
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Descrizione fisica	1 online resource (179 p.)
Collana	Ecological Research Monographs, , 2191-0707
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1 Influences of Climate Change on the Distribution and Population Dynamics of Subalpine Coniferous Forest in the Hakkoda Mountains, Northern Japan -- 2 Trait-based Approaches for Understanding Species Niche, Coexistence, and Functional Diversity in Subalpine Moorlands -- 3 Landscape Structure of Flowering Phenology in Alpine Ecosystems: Significance of Plant–Pollinator Interactions and Evolutionary Aspects -- 4 Plant Genetic Diversity and Plant–Pollinator Interactions Along Altitudinal Gradients -- 5 Vegetation Zonation and Conifer Dominance Along Latitudinal and Altitudinal Gradients in Humid Regions of the Western Pacific -- 6 Roles of Terrestrial Carbon Subsidies to Aquatic Community Metabolism in Mountain Lake Ecosystems -- 7 Planktonic Bacterial Communities in Mountain Lake Ecosystems -- BM Index.
Sommario/riassunto	The purpose of this book is to summarize new insights on the structure

and function of mountain ecosystems and to present evidence and perspectives on the impact of climate change on biodiversity. This volume describes overall features of high-mountain ecosystems in Japan, which are characterized by clear seasonality and snow-thawing dynamics. Individual chapters cover a variety of unique topics, namely, vegetation dynamics along elevations, the physiological function of alpine plants, the structure of flowering phenology, plant–pollinator interactions, the geographical pattern of coniferous forests, terrestrial–aquatic linkage in carbon dynamics, and the community structure of bacteria in mountain lake systems. High-mountain ecosystems are characterized by unique flora and fauna, including many endemic and rare species. On the other hand, the systems are extremely vulnerable to environmental change. The biodiversity is maintained by the existence of spatiotemporally heterogeneous habitats along environmental gradients, such as elevation and snowmelt time. Understanding the structure and function of mountain ecosystems is crucial for the conservation of mountain biodiversity and the prediction of the climate change impacts. The diverse studies and integrated synthesis presented in this book provide readers with a holistic view of mountain ecosystems. It is a recommended read for anyone interested in mountain ecosystems and alpine plants, including undergraduate and graduate students studying ecology, field workers involved in conservational activity in mountains, policymakers planning ecosystem management of protected areas, and researchers of general ecology. In particular, this book will be of interest to ecologists of countries who are not familiar with Japanese mountain ecosystems, which are characterized by humid summers, cold winters, and the snowiest climate in the world.