1. Record Nr. UNINA9910298413403321

Titolo	Ecological Responses at Mount St. Helens: Revisited 35 years after the 1980 Eruption [[electronic resource] /] / edited by Charles M. Crisafulli, Virginia H. Dale
Pubbl/distr/stampa	New York, NY : , : Springer New York : , : Imprint : Springer, , 2018
ISBN	1-4939-7451-3
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (XV, 336 p. 143 illus., 83 illus. in color.)
Disciplina	577
Soggetti	Ecology Ecosystems Geoecology Environmental geology Natural disasters Forestry Terrestial Ecology Geoecology/Natural Processes Natural Hazards
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Sommario/riassunto	This book builds on existing work exploring succession, disturbance ecology, and the interface between geophysical and biological systems in the aftermath of the 1980 eruption of Mount St. Helens. The eruption was dramatic both in the spatial extent of its impact and the range of volcanic disturbance types and intensities. Complex geophysical forces created unparalleled opportunities to study initial ecological responses and long-term succession processes that occur in response to a major contemporary eruption across a great diversity of ecosystems—lowland to alpine forests, meadows, lakes, streams, and rivers. These factors make Mount St. Helens an extremely rich environment for learning about the ecology of volcanic areas and, more generally, about ecosystem response to major disturbance of many types, including land

management. Lessons about ecological recovery at Mount St. Helens are shaping thought about succession, disturbance ecology, ecosystem management, and landscape ecology. “Explosive Mount St. Helens now rivals Krakatoa’s 1883 eruption for understanding ecological change. Researchers escaping their desks have produced top science by repeated immersion, inspiration and observation in nature. From a mountain with conspicuous heterogeneous geology, the big picture emerges, and landscape ecology’s evolving spatial patterns come alive. Bounce-back ecosystem recovery processes enrich the concepts of both resilience and ecological succession. Readers will relish the cascade of discoveries here.” —Richard T.T. Forman, retired PAES Professor of Landscape Ecology at Harvard University “A volcanic eruption instantly resets the ecological clock, starting a process of recovery and renewal that follows multiple pathways. The lessons gleaned from the contributions to this book apply not just to Mount St. Helens, but more broadly, to less spectacular but more frequent environmental disturbances of all sorts.” —John A. Wiens, former Chief Scientist, The Nature Conservancy, and Adjunct Professor, University of Western Australia "Research following the eruption of Mount St. Helens has helped revolutionize our thinking about how forest ecosystems respond to disturbances. Now, as demonstrated in this book, it has also become the global go-to locale for scientific information on impacts of volcanic eruptions! We are incredibly fortunate to have this latest volume summarizing science in this eruptive landscape." —Jerry F. Franklin, Professor of Forest Ecosystems, University of Washington.