Record Nr. UNINA9910253954603321 Mapping Forest Landscape Patterns / / edited by Tarmo K. Remmel, **Titolo** Ajith H. Perera Pubbl/distr/stampa New York, NY:,: Springer New York:,: Imprint: Springer,, 2017 **ISBN** 1-4939-7331-2 Edizione [1st ed. 2017.] Descrizione fisica 1 online resource (XIV, 326 p. 125 illus., 94 illus. in color.) 577 Disciplina Soggetti Landscape ecology Forestry Applied ecology **Environmental management** Landscape Ecology Applied Ecology **Environmental Management** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. Nota di contenuto Preface -- Chapter 1: Mapping forest landscapes: overview and a primer -- Chapter 2: Fuzzy classification of vegetation for ecosystem mapping -- Chapter 3: Portraying wildfires in forest landscapes as discrete complex objects -- Chapter 4: Airborne LiDAR applications in forest landscapes -- Chapter 5: Regression Tree modeling of spatial pattern and process interactions -- Chapter 6: Mapping the abstractions of forest landscape patterns -- Chapter 7: Towards automated forest mapping -- Epilogue: Toward more efficient and effective applications of forest landscape maps. This book explores the concepts, premises, advancements, and Sommario/riassunto challenges in quantifying natural forest landscape patterns through mapping techniques. After several decades of development and use, these tools can now be examined for their foundations, intentions, scope, advancements, and limitations. When applied to natural forest landscapes, mapping techniques must address concepts such as stochasticity, heterogeneity, scale dependence, non-Euclidean

geometry, continuity, non-linearity, and parsimony, as well as be

explicit about the intended degree of abstraction and assumptions. These studies focus on quantifying natural (i.e., non-human engineered) forest landscape patterns, because those patterns are not planned, are relatively complex, and pose the greatest challenges in cartography, and landscape representation for further interpretation and analysis. .