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Titolo	Learning landscape ecology : a practical guide to concepts and techniques // Sarah E. Gergel, Monica G. Turner, editors
Pubbl/distr/stampa	New York, NY : , : Springer, , [2017]
ISBN	9781493963744 1-4939-6374-0
Edizione	[Second edition]
Descrizione fisica	1 online resource (XVIII, 350 pages, 64 illustrations, 25 illustrations in color.)
Disciplina	577
Soggetti	Landscape ecology Regional planning City planning Ecology Environmental monitoring Ecologia del paisatge Seguiment ambiental
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface -- Acknowledgements -- Advice for Instructors -- Introduction to Remote Sensing -- Historical Aerial Photography for Landscape Analysis -- Citizen Science for Assessing Landscape Change -- Understanding Landscape Metrics -- Scale Detection with Semivariograms and Autocorrelograms (with R option) -- Characterizing Categorical Map Patterns Using Neutral Landscape Models (with QRULE and R) -- What Constitutes a Significant Difference in Landscape Pattern? (using R) -- Modeling Landscape Change with Markov Models (with R option) -- Simulating Management Actions and Their Effect on Forest Landscape Pattern (with Harvest Lite) -- Regional and Continental-scale Perspectives on Landscape Pattern -- Using Spatial Statistics and Landscape Metrics to Compare Disturbance Mosaics (with GS+) -- Assessing Multi-scale Landscape Connectivity Using Network Analysis -- Conservation Planning (with Marxan) -- Advances in Quantifying Habitat Connectivity Using Graph Theory (with

Conefor) -- Linking Landscapes and Metacommunities (using R) Joseph R. Bennett and Ben Gilbert -- Modeling Spatial Dynamics of Ecosystem Processes and Services -- Heterogeneity in Ecosystem Services: Multi-scale Carbon Management in Tropical Forest Landscapes -- Regime Shifts and Spatial Resilience in a Coral Reef Seascape -- Understanding Land-Use Feedbacks and Ecosystem Service Tradeoffs in Agriculture -- Social Networks: Uncovering Social-ecological Mismatches in Heterogeneous Marine Landscapes.

Sommario/riassunto

This title meets a great demand for training in spatial analysis tools accessible to a wide audience. Landscape ecology continues to grow as an exciting discipline with much to offer for solving pressing and emerging problems in environmental science. Much of the strength of landscape ecology lies in its ability to address challenges over large areas, over spatial and temporal scales at which decision-making often occurs. As the world tackles issues related to sustainability and global change, the need for this broad perspective has only increased. Furthermore, spatial data and spatial analysis (core methods in landscape ecology) are critical for analyzing land-cover changes world-wide. While spatial dynamics have long been fundamental to terrestrial conservation strategies, land management and reserve design, mapping and spatial themes are increasingly recognized as important for ecosystem management in aquatic, coastal and marine systems. This second edition is purposefully more applied and international in its examples, approaches, perspectives and contributors. It includes new advances in quantifying landscape structure and connectivity (such as graph theory), as well as labs that incorporate the latest scientific understanding of ecosystem services, resilience, social-ecological landscapes, and even seascapes. Of course, as before, the exercises emphasize easy-to-use, widely available software.
