

rics, variograms, neutral models, change detection, network analysis) to the use of spatial models and specific applications in ecological science, management, and conservation from local to regional scales. Unlike many edited volumes written by specialists, this one is carefully harmonized for consistency. There is no better step-by-step general introduction to the applied methods of landscape ecology than this book.

If landscape ecology is already in your teaching or research portfolio, you probably already own the 2002 edition of this publication. Still, this new edition is well worth purchasing. For one thing, 15 years have passed and a lot has changed—especially in technology: geographic information systems (GIS), remote sensing, and spatial statistics have all advanced dramatically since 2002. The technological upgrade alone is worth the purchase, especially for teaching, as the book's examples now rely largely on Excel and the widely used R open access software. Compared with the original, this edition also focuses more on professional applications, includes an expanded international focus, adds newer forms of spatial analysis, such as graph theory-based indicators of connectivity, and more recently developed approaches such as metacommunity analysis, citizen science, ecosystem services, resilience, social-ecological systems, and analysis of seascapes. Comparing the two editions is a great way to see just how far applied landscape ecology has come.

As with the previous edition, the volume is designed around teaching, including structured exercises and a very helpful guide to designing specific courses of study relating to applied aspects of landscape ecology, from conservation and forestry to sustainable management of landscapes and watersheds. It is also supported by free software and data, now provided online. If you study or teach landscape ecology, you need this book.

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LEARNING LANDSCAPE ECOLOGY: A PRACTICAL GUIDE TO CONCEPTS AND TECHNIQUES. *Second Edition.*

Edited by Sarah E. Gergel and Monica G. Turner.
New York: Springer. \$69.99 (paper). xviii + 347 p.; ill.; index. ISBN: 978-1-4939-6372-0 (pb); 978-1-4939-6374-4 (eb). 2017.

In recent decades, landscape ecology has become a well-established subdiscipline of ecology; the scientific underpinning for understanding and managing the spatial patterns and processes that have proved so critical in shaping the dynamics of populations, communities, and ecological functions across both terrestrial and marine environments. Advances in scientific understanding are a key reason for its success in becoming mainstream. Another is rapid growth in the technologies enabling spatial observations and analysis. But no less important is the dissemination of high-quality materials for learning these applied techniques, such as the first edition of this volume.

If you are an environmental professional, scholar, or graduate student who wants to gain basic skills in the techniques of landscape ecology, this is your book, ideally paired with its companion: the second edition of Monica Turner and Robert Gardner's classic, *Landscape Ecology in Theory and Practice: Pattern and Process* (2015. New York: Springer). Chapters by expert authors provide a solid grounding in the applied methodologies of landscape ecology, from the basics of remote sensing and spatial analysis (met-