Record Nr. UNINA9910298450803321 Green Roof Ecosystems [[electronic resource] /] / edited by Richard K. **Titolo** Sutton Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2015 **ISBN** 3-319-14983-0 Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (451 p.) Collana Ecological Studies, Analysis and Synthesis, , 2196-971X ; ; 223 Disciplina 635.9671 Soggetti Urban ecology (Biology) Landscape ecology **Ecosystems** Landscape architecture Regional planning Urban planning **Urban Ecology** Landscape Ecology Landscape Architecture Landscape/Regional and Urban Planning Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index at the end of each chapters. Nota di contenuto 1. Introduction to Green Roof Ecosystems -- 2. Monitoring Abiotic Inputs and Outputs -- 3. Climates and Microclimates: Challenges for Extensive -- 4. Green Roof Design for Hot Climates -- 5. Water through Green Roofs -- 6. Nutrient Cycling in Green Roof Ecosystems -- 7. Soil-based Green Roofs -- 8. Bacteria and Fungi in Green Roof Ecosystems -- 9. Plant Biodiversity on Green Roofs -- 10. Effects of Vegetation on Green Roof -- 11. Ecosystem Services -- 12. Ruderal Green Roofs -- 13. Assembling Prairie Biome Plants for Minnesota --14. Green Roofs -- 15. Green Roof Plant Assemblage and Dynamics --16. Long-term Rooftop Plant Communities -- 17. Invertebrates on

Green Roofs -- 18. Placing Green Roofs in Time and Space: Scale, Recruitment, Establishment, and Regeneration -- 19. Eco-regional

## Sommario/riassunto

Green Roof Case Studies -- 20. Green Roof Ecosystems: Summary and Synthesis.

This book provides an up-to-date coverage of green (vegetated) roof research, design, and management from an ecosystem perspective. It reviews, explains, and poses questions about monitoring, substrate, living components, and the abiotic, biotic, and cultural aspects connecting green roofs to the fields of community, landscape, and urban ecology. The work contains examples of green roof venues that demonstrate the focus, level of detail, and techniques needed to understand the structure, function, and impact of these novel ecosystems. Representing a seminal compilation of research and technical knowledge about green roof ecology and how functional attributes can be enhanced, it delves to explore the next wave of evolution in green technology and defines potential paths for technological advancement and research.