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Nota di contenuto	pt. I. Introduction -- 1. Impact of a classic paper by H. Ronald Pulliam : the first 20 years -- pt. II. Advances in source-sink theory -- 2. Evolution in source-sink environments : implications for niche conservatism -- 3. Source-sink dynamics emerging from unstable ideal-free habitat selection -- 4. Sources and sinks in the evolution and persistence of mutualisms -- 5. Effects of climate change on dynamics and stability of multiregional populations -- 6. Habitat quality, niche breadth, temporal stochasticity, and the persistence of populations in heterogeneous landscapes -- 7. When sinks rescue sources in dynamic

environments -- 8. Sinks, sustainability, and conservation incentives -- pt. III. Progress in source-sink methodology -- 9. On estimating demographic and dispersal parameters for niche and source-sink models -- 10. Source-sink status of small and large wetland fragments and growth rate of a population network -- 11. Demographic and dispersal data from anthropogenic grasslands : what should we measure? -- 12. Network analysis : a tool for studying the connectivity of source-sink systems -- 13. Sources, sinks, and model accuracy -- 14. Scale-dependence of habitat sources and sinks -- 15. Effects of experimental population removal for the spatial population ecology of the alpine butterfly, Parnassius smintheus -- pt. IV. Improvement of source-sink management -- 16. Contribution of source-sink theory to protected area science -- 17. Evidence of source-sink dynamics in marine and estuarine species -- 18. Population networks with sources and sinks along productivity gradients in the Fiordland Marine Area, New Zealand : a case study on the sea urchin Evechinus chloroticus -- 19. Source-sinks, metapopulations, and forest reserves : conserving northern flying squirrels in the temperate rainforests of Southeast Alaska -- 20. Does forest fragmentation and loss generate sources, sinks, and ecological traps in migratory songbirds? -- 21. Source-sink population dynamics and sustainable leaf harvesting of the understory palm Chamaedorea radicalis -- 22. Assessing positive and negative ecological effects of corridors -- pt. V. Synthesis -- 23. Sources and sinks : what is the reality?

Sommario/riassunto

Source-sink theories provide a simple yet powerful framework for understanding how the patterns, processes and dynamics of ecological systems vary and interact over space and time. Integrating multiple research fields, including population biology and landscape ecology, this book presents the latest advances in source-sink theories, methods and applications in the conservation and management of natural resources and biodiversity. The interdisciplinary team of authors uses detailed case studies, innovative field experiments and modeling, and comprehensive syntheses to incorporate source-sink ideas into research and management, and explores how sustainability can be achieved in today's increasingly fragile human-dominated ecosystems. Providing a comprehensive picture of source-sink research as well as tangible applications to real world conservation issues, this book is ideal for graduate students, researchers, natural-resource managers and policy makers.