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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Title; Contents; List of Figures and Tables; Acknowledgments; Preface; What Is and Is Not There; Assumed Background; Of Gene and Fitness; 1. Introduction; Genetic Structure in Relation to Selection; Plan of the Book; 2. Selection and Drift; Selection in Panmictic Populations; Evolution in Spatially Structured Populations; Selection and Local Drift; Effective Size in Subdivided Populations; Measuring Population Structure; Genetic Identity; Statistical Concepts of Equilibrium and Population; Summary; 3. Spatially Homogeneous Dispersal: The Island Model and Isolation by Distance Island Models Isolation by Distance; Dispersal in Natural Populations; The Lattice Models; Differentiation under Isolation by Distance; Summary; Appendix 1: General Analysis of the Lattice Model; Appendix 2: Miscellaneous Results ; Diversity in a Deme; Average Diversity in a Population; Differentiation under Low Dispersal; 4. Interpretations of Inbreeding and Relatedness Coefficients in Subdivided Populations; Probabilities of Coalescence in Migration Matrix Models; Migration Matrix Models: Formulation; Probabilities of Coalescence; Interpretations of FST; Coalescence before Dispersal

Separation of Time Scales An Ancestral Reference Population?;  
 Differences between Distributions of Coalescence Times; Properties of  
 Inbreeding Coefficients; Sensitivity to Mutation and to Past  
 Demographic Events; No Mutation; Alternative Measures of Allelic  
 Divergence; 5. Evolutionary Dynamics; Fitness in a Panmictic  
 Population; Example: Resource Competition; Convergence Stability;  
 Evolutionary Stability; Applicability of This Framework; Fitness in a  
 Subdivided Population; Frequency Dependence in Subdivided  
 Populations; How to Measure Selection?; Conclusion  
 Appendix: The Prisoner's Dilemma Game Noniterated Game; Iterated  
 Game; 6. Convergence Stability in a Spatially Homogeneous Population;  
 Weak Selection Effects on Probability of Fixation; Fixation Probability as  
 Allele Frequency Change; Fitness Functions; Fixation Probability: Direct  
 Fitness Expansion; Expression in Terms of Parameters of Population  
 Structure ; Practical Computation of Convergence Stability; Island  
 Model; Isolation by Distance; Conclusions; Direct Fitness Method;  
 Fitness Maximization; 7. Inclusive Fitness, Cooperation, and Altruism;  
 What Inclusive Fitness Does Measure  
 Inclusive and Direct Fitness Hamilton's Derivation of Inclusive Fitness;  
 Isolation by Distance; Altruism in Spatially Subdivided Populations;  
 Cost, Benefit, and Relatedness; Helping Neighbors; Other Examples;  
 The Importance of Kin Competition; Kin Recognition; Implications for  
 Modeling Approaches; Inclusive Fitness Theory; Other Frameworks;  
 Appendix: Helping Neighbors under Isolation by Distance; 8. Diploidy  
 (and Sex); Population Structure of Diploid Populations; Analysis of  
 Pollen and Seed Dispersal; Joint Effects of Selfing and Selection on  
 Population Structure  
 Selection in Sexual Diploid Populations

## Sommario/riassunto

Various approaches have been developed to evaluate the consequences  
 of spatial structure on evolution in subdivided populations. This book  
 is both a review and new synthesis of several of these approaches,  
 based on the theory of spatial genetic structure. Francois Rousset  
 examines Sewall Wright's methods of analysis based on F-statistics,  
 effective size, and diffusion approximation; coalescent arguments;  
 William Hamilton's inclusive fitness theory; and approaches rooted in  
 game theory and adaptive dynamics. Setting these in a framework that  
 reveals their common features, he demonstrates how