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Nota di contenuto	Part I. Introduction -- Chapter. 1. A fresh look at Conservation Genetics in the Neotropics -- Part. II. Species and Conservation -- Chapter. 2. DNA barcoding for assessing biodiversity -- Chapter. 3. Genetic tools for the conservation of bats -- Chapter. 4. Status quo and orchid conservation challenges in the neotropical region -- Chapter. 5. Population Differentiation with Introgression -- Part. III. Assessing and Managing Populations -- Chapter. 6. Phylogeography for neotropical species conservation: Lineages through time and space -- Chapter. 7. Landscape genetics in the Neotropics -- Chapter. 8. Integrative cytogenetics, a conservation approach in Atlantic fish: Concepts, estimates, and uses -- Chapter. 9. In situ, ex situ and on farm

conservation of plant genetic resources in Neotropics -- Chapter. 10. Genetic management applied to conservation of reduced and fragmented wild populations -- Chapter. 11. Chromosome variability of manatees (Trichechus spp.) from Brazil: the state of the art, challenges and perspectives for management and conservation -- Chapter. 12. Supplemental technologies for freshwater fish conservation -- Part. IV. Wildlife Forensic Genetics, Ecotoxicology and Conservation -- Chapter. 13. Giving names to the characters: identifying, tracing and estimating the multiple use of aquatic wildlife in Brazil -- Chapter. 14. Wildlife forensic genetics: a tool for resolving wildlife crimes and support species conservation -- Chapter. 15. Environmental ecogenotoxicity and conservation -- Part. V. Assessing Molecular Ecology and Communities -- Chapter. 16. Molecular ecology in neotropical mammals: key aspects for conservation -- Chapter. 17. Molecular tools to analyze the effects of roads on wildlife in the Neotropics -- Chapter. 18. Environmental and invertebrate-derived DNA: a powerful approach for surveying and monitoring biodiversity -- Part. VI. Conservation Genomics -- Chapter. 19. Conservation genomics of neotropical carnivores -- Chapter. 20. Challenges with conservation genetics and genomics in neotropical forest -- Chapter. 21. Integrating genomic and cytogenetic data to study the evolutionary history of arapaimas and arowanas in the Neotropics -- Part. VII. Science Learning and Conservation -- Chapter. 22. Environmental Education on Practices for Biodiversity Conservation -- Chapter. 23. Phenotypic plasticity of plants in formal and non-formal education: genetics in everyday life -- Index.

Sommario/riassunto

This book explores how genetics and the new technologies in genomics have been used for conservation of plants and animals in the Neotropics. It shows the new perspective for conservation genetics beyond the use of theoretical and methods in genetics at species level and presents how genetics and genomics can be used for assessing communities. Conservation genetics and genomics are presented as a helpful field of study for resolving taxonomic uncertainties and hidden biodiversity, understanding populations and extinction risk, genetic management, wildlife forensic genetics, assessing biology and molecular ecology, assessing communities, conservation genomics and the use of conservation biology and genetics in science learning, highlighting case studies in the Neotropics. Applications of conservation genetics for management or policy, decision making, planning, and implementation of conservation practice in the Neotropics are addressed across chapters. This book will interest to researchers and students in conservation genetics and biology conservation interested in the Neotropics. Stakeholders and decision makers in conservation biology may also find this book useful.