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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front Matter -- Contents -- Preface -- Hawaii Is One of the Best Places in the World to Study Biological Evolution -- Biological Evolution Explains the Characteristics of Hawaii's Plants and Animals -- Science Produces Explanations That Can Be Tested Using Empirical Evidence -- Scientific Research Has Revealed How the Hawaiian Islands Originated -- The Evolution of Life on Earth Set the Stage for Evolution in Hawaii -- Panel 1: Plate Tectonics and the Ages of the Hawaiian Islands -- An Adaptive Radiation Has Led to a Dramatic Diversification of the Drosophilids in Hawaii -- Panel 2: Evolutionary Relationships Among the Picture-Winged Drosophilids -- Many Other Species Have Undergone Adaptive Radiations in Hawaii -- Panel 3: The Evolutionary History of the Silversword Alliance -- Alien Species Pose a Severe Threat to Hawaii's Native Plants and Animals -- Many Critical Problems Cannot Be Addressed Without Understanding Biological Evolution -- Selected Bibliography -- Teaching Exercise: Tracing the Evolutionary

Sommario/riassunto

As both individuals and societies, we are making decisions today that will have profound consequences for future generations. From preserving Earth's plants and animals to altering our use of fossil fuels, none of these decisions can be made wisely without a thorough understanding of life's history on our planet through biological evolution. Companion to the best selling title Teaching About Evolution and the Nature of Science, Evolution in Hawaii examines evolution and the nature of science by looking at a specific part of the world. Tracing the evolutionary pathways in Hawaii, we are able to draw powerful conclusions about evolution's occurrence, mechanisms, and courses. This practical book has been specifically designed to give teachers and their students an opportunity to gain a deeper understanding of evolution using exercises with real genetic data to explore and investigate speciation and the probable order in which speciation occurred based on the ages of the Hawaiian Islands. By focusing on one set of islands, this book illuminates the general principles of evolutionary biology and demonstrate how ongoing research will continue to expand our knowledge of the natural world.
