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Nota di contenuto	Frontmatter -- Contents -- Preface -- Acknowledgments -- 1. Introduction: On Rebels, Icons, and the Value of Dissent -- 2. Alfred Russel Wallace, the Discovery of Natural Selection, and the Origins of Humankind -- 3. Rebel With Two Causes: Hans Driesch -- 4. Wilhelm Johannsen: A Rebel or a Diehard? -- 5. Raymond Arthur Dart: The Man Who Unwillingly Ushered in a Revolution in the Evolution of Humankind -- 6 In Weismann's Footsteps: The Cyto-Rebellion of C. D. Darlington -- 7. Striking the Hornet's Nest: Richard Goldschmidt's Rejection of the Particulate Gene -- 8. Rebellion and Iconoclasm in the Life and Science of Barbara McClintock -- 9. Challenging the Protein Dogma of the Gene: Oswald T. Avery, a Revolutionary Conservative -- 10. Roger Sperry and Integrative Action in the Nervous System -- 11. Leon Croizat: A Radical Biogeographer -- 12. Dogma, Heresy, and Conversion: Vero Copner Wynne-Edwards's Crusade and the Levels-of-Selection Debate -- 13. Peter Mitchell: Changing the Face of Bioenergetics -- 14. Howard Temin: Rebel of Evidence and Reason -- 15. Motoo Kimura and the Rise of Neutralism -- 16. Against the Grain: The Science and Life of William D. Hamilton -- 17. The Iconoclastic

Research Program of Carl Woese -- 18. Stephen Jay Gould, Darwinian Iconoclast? -- 19. Culture and Gender Do Not Dissolve into How Scientists "Read" Nature: Thelma Rowell's Heterodoxy -- 20. Bringing Statistical Methods to Community and Evolutionary Ecology: Daniel S. Simberloff -- Epilogue: Legitimation Is the Name of the Game -- Contributors -- Index

Sommario/riassunto

This book is the first devoted to modern biology's innovators and iconoclasts: men and women who challenged prevailing notions in their fields. Some of these scientists were Nobel Prize winners, some were considered cranks or gadflies, some were in fact wrong. The stories of these stubborn dissenters are individually fascinating. Taken together, they provide unparalleled insights into the role of dissent and controversy in science and especially the growth of biological thought over the past century. Each of the book's nineteen specially commissioned chapters offers a detailed portrait of the intellectual rebellion of a particular scientist working in a major area of biology-- genetics, evolution, embryology, ecology, biochemistry, neurobiology, and virology as well as others. An introduction by the volume's editors and an epilogue by R. C. Lewontin draw connections among the case studies and illuminate the nonconforming scientist's crucial function of disturbing the comfort of those in the majority. By focusing on the dynamics and impact of dissent rather than on "winners" who are credited with scientific advances, the book presents a refreshingly original perspective on the history of the life sciences. Scientists featured in this volume: Alfred Russel Wallace Hans Driesch Wilhelm Johannsen Raymond Arthur Dart C. D. Darlington Richard Goldschmidt Barbara McClintock Oswald T. Avery Roger Sperry Leon Croizat Vero Copner Wynne-Edwards Peter Mitchell Howard Temin Motoo Kimura William D. Hamilton Carl Woese Stephen Jay Gould Thelma Rowell Daniel S. Simberloff
