

1. Record Nr.	UNINA9910781903503321
Autore	Forsdyke Donald R
Titolo	The origin of species, revisited [[electronic resource]] : a Victorian who anticipated modern developments in Darwin's theory // Donald R. Forsdyke
Pubbl/distr/stampa	Kingston, Ont. ; ; Ithaca, : McGill-Queen's University Press, 2001
ISBN	1-282-85963-3 9786612859632 0-7735-6962-6
Descrizione fisica	1 online resource (288 p.)
Disciplina	576.8/2/094109034
Soggetti	Evolution (Biology) - Great Britain - History - 19th century
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front Matter -- Contents -- Acknowledgments -- Prologue -- Search for a Victorian -- Evolution of Languages and Species -- Variation, Heredity, Phenotypic and Reproductive Selection -- Darwin's Difficulties -- Hybrid Sterility -- Physiological Selection -- Failure of Meiotic Pairing -- Conjugation of the Chromosomes -- Why Sex? -- The Species-Dependent Component of Base Composition -- Molecular Biology -- Primary and Secondary Levels of Information -- The Dominance of the Genome Phenotype -- Initiation of Speciation -- Relationship to Physiological Selection -- The Divergence and Convergence of Species -- Selfish Genes and Selfish Groups -- Slow Fine-Tuning of Sequences -- Fine-Tuning of RNAs -- RNAs Driving on the Wrong Side -- Protein Concentration and Genetic Dominance -- Sex Chromosomes -- The Darwinian Struggle for Truth -- The Philosopher -- Huxley and the Philosopher's Wife -- "We Commend This State of Mind" -- Epilogue -- References -- Index
Sommario/riassunto	The trail led first to Joseph Hooker and Thomas Huxley, who had been both the theory's strongest supporters and its most penetrating critics, and eventually to Darwin's young research associate, the Victorian Georges Romanes, and to the Victorian-Edwardian, William Bateson. Although these men were well-known, their resolution of the origin of species paradox has either been ignored (Romanes), or ignored and

reviled (Bateson). Four years after Darwin's death, Romanes published a theory of the origin of species by means of "physiological selection" that resolved the inconsistencies in Darwin's theory and introduced the idea of a "peculiarity" of the reproductive system that allowed selective fertility between "physiological complements." Forsdyke argues that the chemical basis of the origin of species by physiological selection is actually the species-dependent component of the base composition of DNA, showing that Romanes thus anticipated modern biochemistry. Using this new perspective Forsdyke considers some of the outstanding problems in biology and medicine, including the question of how "self" is distinguished from "not-self" by members of different species. Finally he examines the political and ideological forces that led to Romanes' contribution to evolutionary biology which has remained unappreciated until now.
