

1. Record Nr.	UNINA9910794436603321
Autore	Brower Andrew V. Z (Andrew Van Zandt), <1962->
Titolo	Biological systematics : principles and applications // Randall T. Schuh, Andrew V.Z. Brower
Pubbl/distr/stampa	Cornell University Press Ithaca, NY, [2021]
ISBN	1-5017-5279-0
Edizione	[Third Edition.]
Descrizione fisica	1 online resource (456 pages) : illustrations
Collana	Cornell scholarship online
Disciplina	574.012
Soggetti	Biology - Classification
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	This edition also issued in print: 2021.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front matter -- Contents -- Preface to the First Edition -- Preface to the Second Edition -- Preface to the Third Edition -- Acknowledgments to the First Edition -- Acknowledgments to the Second Edition -- Dedication and Acknowledgments to the Third Edition -- Section I. HISTORICAL AND PHILOSOPHICAL BACKGROUND FOR SYSTEMATICS -- 1. Introduction to Systematics: First Principles and Practical Tools -- 2. Systematics and the Philosophy of Science -- Section II. CLADISTIC METHODS -- 3. Characters and Character States -- 4. Character Polarity and Inferring Homology -- 5. Tree-Building Algorithms and Philosophies -- 6. Evaluating Results -- Section III. APPLICATION OF CLADISTIC RESULTS -- 7. Species: Concepts, Recognition, and Analytical Problems -- 8. Nomenclature, Classifications, and Systematic Databases -- 9. The Integration of Phylogenetics, Historical Biogeography, and Host-Parasite Coevolution -- 10. Evaluating Hypothetical Scenarios of Evolution, Ecology and Adaptation -- 11. Understanding Molecular Clocks and Time Trees -- 12. Biodiversity and Conservation -- Postscript: Parsimony and the Future of Systematics -- Appendix -- Glossary -- Literature Cited -- Author Index -- Subject Index
Sommario/riassunto	Understanding the history and philosophy of biological systematics (phylogenetics, taxonomy and classification of living things) is key to successful practice of the discipline. In this thoroughly revised Third Edition of the classic Biological Systematics, Andrew V. Z. Brower and

Randall T. Schuh provide an updated account of cladistic principles and techniques, emphasizing their empirical and epistemological clarity. Schuh and Brower cover: -the history and philosophy of systematics - the mechanics and methods of character analysis, phylogenetic inference, and evaluation of results -the practical application of systematic results to: - biological classification, - adaptation and coevolution - biodiversity, and conservation -new chapters on species and molecular clocks Biological Systematics is intended as a textbook for students studying systematic biology and as a desk reference for practicing systematists. Part explication of concepts and methods, part exploration of the underlying epistemology of systematics, Brower and Schuh aim in this third edition to explain why some methods are more empirically sound than others.
