

Ever since the pioneering work of Darwin and Wallace, evolutionary biologists have attempted to understand the evolutionary dynamics of genetic systems. A range of theories on evolutionary rates—from static to gradual to punctuated to quantum—have been developed, primarily by comparing morphological changes over geological time-scales as described in the fossil record. Recent studies, however, are beginning to change the way that we view evolutionary patterns and processes. New paleontological, experimental, molecular, and genomic investigations are providing a tremendous amount of novel data and fresh perspectives, offering valuable insights on the rates of evolutionary change, particularly in fast-evolving genetic systems.

Rapidly Evolving Genes and Genetic Systems captures these recent exciting developments across a broad range of morphological, molecular, cellular, developmental, and genetic investigations in both natural and experimental populations over a diversity of life forms. The book provides a fascinating series of case studies that exemplify rapid evolution and describe the diversity of rapidly evolving genes and genetic systems, emphasizing the extremely important roles that they play in adaptation, speciation, and the generation and maintenance of a diversity of biological traits and properties.

This exciting collection showcases the latest research of more than 50 eminent evolutionary biologists. It will be suitable for senior undergraduate students, graduate students, researchers, and for all those interested in the study of evolution.

Image concept: In the spirit of evolution in the fast lane. © Shutterstock.com

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