

EVOLUTIONARY GENETICS IS THE STUDY OF HOW GENETIC CHANGE UNDERLIES ORGANISMAL EVOLUTION.

With recent technological advances, vast quantities of genetic and genomic data are being generated at an ever-increasing pace. The explosion in access to data has transformed the field of evolutionary genetics. A thorough understanding of evolutionary principles is essential for making sense of this, but new skill sets are also needed to handle and analyze big data. This contemporary textbook covers all the major components of modern evolutionary genetics, carefully explaining fundamental processes such as mutation, natural selection, genetic drift, and speciation. It also draws on a rich literature of exciting and inspiring examples to demonstrate the diversity of evolutionary research, including an emphasis on how evolution and selection has shaped our own species.

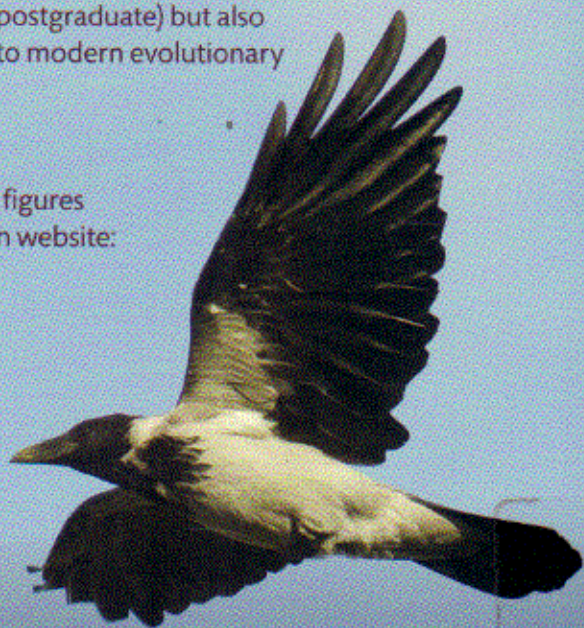
Practical experience is essential for developing an understanding of how to use genetic and genomic data to analyze and interpret results in meaningful ways. In addition to the main text, a series of online tutorials using the R language serves as an introduction to programming, statistics, and analysis. Indeed the R environment stands out as an ideal all-purpose source platform to handle and analyze such data. The book and its online materials take full advantage of the authors' own experience in working in a post-genomic revolution world, and introduces readers to the plethora of molecular and analytical methods that have only recently become available.

Evolutionary Genetics is an advanced but accessible textbook aimed principally at students of various levels (from undergraduate to postgraduate) but also for researchers looking for an updated introduction to modern evolutionary biology and genetics.

R tutorials to accompany the book are available at <https://evolutionarygenetics.github.io/> and all of the figures included in the book can be found on the companion website: www.oup.co.uk/companion/saetre&ravinet

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