Record Nr. UNINA9910815285803321 Autore Avise John C Titolo Evolutionary pathways in nature: a phylogenetic approach // John C. Avise; illustrations by Trudy Nicholson Cambridge,: Cambridge University Press, 2006 Pubbl/distr/stampa 1-107-16674-8 **ISBN** 1-280-48022-X 9786610480227 0-511-22051-0 0-511-22128-2 0-511-21931-8 0-511-32425-1 0-511-60693-1 0-511-21999-7 Edizione [1st ed.] Descrizione fisica 1 online resource (x, 286 pages) : digital, PDF file(s) Altri autori (Persone) NicholsonTrudy H Disciplina 579/.138 Soggetti Phylogeny Evolution (Biology) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Title from publisher's bibliographic system (viewed on 05 Oct 2015). Nota di bibliografia Includes bibliographical references (p. [253]-278) and index. COVER; HALF-TITLE; TITLE; COPYRIGHT; CONTENTS; Preface; Nota di contenuto ACKNOWLEDGMENTS: 1 Introduction: 2 Anatomical structures and morphologies; 3 Body colorations; 4 Sexual features and reproductive lifestyles; 5 More behaviors and ecologies; 6 Cellular, physiological, and genetic traits; 7 Geographical distributions; Epilog; Appendix: A primer on phylogenetic character mapping; Glossary; References and Further reading; Index Reconstructing phylogenetic trees from DNA sequences has become a Sommario/riassunto popular exercise in many branches of biology, and here the well-known geneticist John Avise explains why. Molecular phylogenies provide a

> genealogical backdrop for interpreting the evolutionary histories of many other types of biological traits (anatomical, behavioral, ecological, physiological, biochemical and even geographical). Guiding readers on

a natural history tour along dozens of evolutionary pathways, the author describes how creatures ranging from microbes to elephants came to possess their current phenotypes. Essential reading for college students, professional biologists and anyone interested in natural history and biodiversity, this book is packed with fascinating examples of evolutionary puzzles from across the animal kingdom; how the toucan got its enormous bill, how reptiles grow back lost limbs and why Arctic fish don't freeze.