Record Nr. UNINA9910337950403321 Avian Genomics in Ecology and Evolution: From the Lab into the Wild / Titolo / edited by Robert H. S. Kraus Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2019 **ISBN** 9783030164768 9783030164775 (e-book) Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (V, 348 p. 50 illus., 42 illus. in color.) Disciplina 591.35 572.83818 Soggetti Animal genetics **Ecology Evolutionary biology** Animal systematics Animal taxonomy Animal models in research **Animal Genetics and Genomics Ecology Evolutionary Biology** Animal Systematics/Taxonomy/Biogeography **Animal Models** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Chapter 1. An introduction to "Avian Genomics in Ecology and Evolution

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Avian Genomics -- Chapter 3. Avian Genomics in Animal Breeding and the end of the model organism -- Chapter 4. Avian chromosomal evolution -- Chapter 5. Repetitive DNA - the dark matter of avian genomics -- Chapter 6. Resolving the avian tree of life from top to bottom: The promise and potential boundaries of the phylogenomic era -- Chapter 7. Avian Species Concepts in the Light of Genomics --Chapter 8. Population Genomics and Phylogeography -- Chapter 9.

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Avian population studies in the genomic era -- Chapter 10. The Contribution of Genomics to Bird Conservation -- Chapter 11. Jurassic Spark: What did the genomes of dinosaurs look like?.

Birds catch the public imagination like no other group of animals; in addition, birders are perhaps the largest non-professional naturalist community. Genomics and associated bioinformatics have revolutionised daily life in just a few decades. At the same time, this development has facilitated the application of genomics technology to ecological and evolutionary studies, including biodiversity and conservation at all levels. This book reveals how the exciting toolbox of genomics offers new opportunities in all areas of avian biology. It presents contributions from prominent experts at the intersection of avian biology and genomics, and offers an ideal introduction to the world of genomics for students, biologists and bird enthusiasts alike. The book begins with a historical perspective on how genomic technology was adopted by bird ecology and evolution research groups. This led, as the book explains, to a revised understanding of avian evolution, with exciting consequences for biodiversity research as a whole. Lastly, these impacts are illustrated using seminal examples and the latest discoveries from avian biology laboratories around the world.