

1. Record Nr.	UNINA9910813786903321
Autore	Mayr Gerald
Titolo	Avian evolution : the fossil record of birds and its paleobiological significance // Gerald Mayr, Senckenberg Research Institute Frankfurt, Ornithological Section, Frankfurt am Main, Germany
Pubbl/distr/stampa	Chichester, West Sussex : , : John Wiley & Sons, Incorporated, , 2017
ISBN	1-119-02072-7 1-119-02067-0
Descrizione fisica	1 online resource (326 p.)
Collana	Topics in paleobiology series
Disciplina	568
Soggetti	Birds, Fossil Paleobiology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Title Page; Copyright; Contents; Foreword; Preface; Acknowledgments; Chapter 1 An Introduction to Birds, the Geological Settings of Their Evolution, and the Avian Skeleton; Birds Are Evolutionarily Nested within Theropod Dinosaurs; The Geological Settings of Avian Evolution in a Nutshell; Characteristics of the Avian Skeleton; Chapter 2 The Origin of Birds; Archaeopteryx: The German "Urvogel" and Its Bearing on Avian Evolution; The Closest Maniraptoran Relatives of Birds; Feather Evolution; The Origin of Avian Flight; Chapter 3 The Mesozoic Flight Way towards Modern Birds Jeholornithids: Early Cretaceous Long-Tailed Birds Confuciusornis, Sapeornis, and Kin: Basal Birds with a Pygostyle; Ornithothoraces and the Origin of Sustained Flapping Flight Capabilities; The Ornithuromorpha: Refinement of Modern Characteristics; Ornithurae and the Origin of Modern Birds; Chapter 4 Mesozoic Birds: Interrelationships and Character Evolution; The Interrelationships of Mesozoic Birds: Controversial Phylogenetic Placements and Well-Supported Clades; Character Evolution in Mesozoic Birds; Ontogenetic Development of Mesozoic Birds Chapter 5 The Interrelationships and Origin of Crown Group Birds (Neornithes) Phylogenetic Interrelationships of Neornithine Birds; The Mesozoic Fossil Record of Neornithine-Like and Neornithine Birds;

Chapter 6 Palaeognathous Birds (Ostriches, Tinamous, and Allies); The Interrelationships of Extant Palaeognathae; Early Cenozoic Palaeognathous Birds of the Northern Hemisphere; Long-Winged Ostriches, Rheas, and Tinamous; Short-Winged Palaeognathous Birds; Biogeography: A Textbook Example of Gondwanan Vicariance Has Been Dismantled; Chapter 7 Galloanseres: "Fowl" and Kin Galliformes: From Herbivorous Forest Dwellers to Seed Eaters of Open Landscapes The Waterfowl; Gastornithids: Giant Herbivorous Birds in the Early Paleogene of the Northern Hemisphere; Dromornithids (Mihirungs or Thunderbirds): Gastornis-Like Birds from Australia; Pelagornithids: Bony-Toothed Birds; Chapter 8 The "Difficult-to-Place Groups": Biogeographic Surprises and Aerial Specialists; The Columbiform Birds: Doves, Sandgrouse, ... and Mesites?; The Hoatzin: A South American Relict Species; Turacos and Cuckoos; Bustards The "Wonderful" Mirandornithes, or How Different Can Sister Taxa Be? Strisores: The Early Diversification of Nocturnal Avian Insectivores; Chapter 9 Shorebirds, Cranes, and Relatives; Charadriiformes: One of the Most Diverse Groups of Extant Birds; From Rail to Crane; Chapter 10 Aequornithes: Aquatic and Semi-Aquatic Carnivores; Loons: Foot-Propelled Divers of the Northern Hemisphere; Pelagic Tubenoses and Albatrosses; Penguins: More Than 60 Million Years of Flightlessness; The Polyphyletic "Pelecaniformes" and "Ciconiiformes"; Late Cenozoic Turnovers in Marine Avifaunas Chapter 11 Cariamiforms and Diurnal Birds of Prey

Sommario/riassunto

"Knowledge of the evolutionary history of birds has much improved in recent decades. Fossils from critical time periods are being described at unprecedented rates and modern phylogenetic analyses have provided a framework for the interrelationships of the extant groups. This book gives an overview of the avian fossil record and its paleobiological significance, and it is the only up-to-date textbook that covers both Mesozoic and more modern-type Cenozoic birds in some detail. The reader is introduced to key features of basal avians and the morphological transformations that have occurred in the evolution towards modern birds. An account of the Cenozoic fossil record sheds light on the biogeographic history of the extant avian groups and discusses fossils in the context of current phylogenetic hypotheses. This review of the evolutionary history of birds not only addresses students and established researchers, but it may also be a useful source of information for anyone else with an interest in the evolution of birds and a moderate background in biology and geology" --
