

Alan Feduccia (1943 -) : Biography

Alan Feduccia is S. K. Heninger Distinguished Professor Emeritus and former Chair of the Department of Biology, University of North Carolina at Chapel Hill. He was also Chair of UNC's Division of Natural Sciences, served two terms on the Board of Governors of UNC Press, on the Board of Directors, Arts & Sciences Foundation, the Board of Trustees, UNC Botanical Garden, and the Organization for Tropical Studies. As Chair he built up genomic sciences, hiring twelve new faculty, and proposing and completing initial design of the new UNC Genome Sciences Building. As a youth Feduccia was consumed with the study of natural history and was an Eagle Scout. He took his B.S. in zoology from Louisiana State University (1965), participating in natural history exploratory expeditions to Honduras, El Salvador and Amazonian Peru; and finished his Ph.D. at the University of Michigan (1969), writing his thesis on evolution of Neotropical birds. At the University of North Carolina his career focused on the study of evolutionary biology, vertebrate history, and tempo and mode of evolution. His approximately 160 publications include seven major books and five monographs. Feduccia's early 1970s research produced the first comprehensive model of land bird evolution, and fossil discoveries first illustrated mosaic skeletal geometry in Paleogene birds, eventually leading to his 'Big Bang' explosive evolution model for birds and mammals (*Science*, 1995; *Trends in Ecology and Evolution*, 2003). He is renowned for writing the first modern synthesis of avian evolution. Comments on *The Age of Birds* (Harvard University Press 1980, German & Japanese), included: "a revelation of clarity and synthesis . . . Feduccia---himself a leading anatomist---has brought together startling new evidence on the reptilian-avian relationship . . . science writing at its best," (Dillon Ripley, Secretary, Smithsonian Institution), and it was termed "definitive" by the *New York Times*. His texts on anatomy/embryology were *Structure and Evolution of Vertebrates* (W. W. Norton, 1975), and *Morphogenesis of the Vertebrates* (With T. Torrey, John Wiley & Sons, 1979, 1991); and books relating to natural history during the colonial period include *Catesby's Birds of Colonial America* (UNC Press, 1985), and *Birds of Colonial Williamsburg: A Historical Portfolio* (Colonial Williamsburg Foundation, 1989). *The Origin and Evolution of Birds* (Yale University Press 1996, lead science book, 2nd ed., 1999, Japanese), termed by Harvard's eminent evolutionary biologist Ernst Mayr as "the foundation from which all future investigations of avian relationships will start," was winner of the Association of American Publishers 1996 award for Excellence in Biological Science. The book was called "a masterpiece both technically and artistically," and a *Science* review (1997) noted that, "it will remain the premier document on early evolution of birds for years to come." Feduccia's research in developmental biology identified for the first time the pentadactyl hand and first digit (thumb) of birds, a problem dating to 1820 (*Science*, 1997; *Naturwissenschaften*, *Science*, 2002), and in February, 2003 he was *Discover Magazine's* Scientist of the Month, with an interview emphasizing his revolutionary new views on avian evolution, now quickly gaining international momentum. His latest book *Riddle of the Feathered Dragons: Hidden Birds of China* (Yale University Press, 2012) attempts "to make the case for dismantling the current orthodoxy that birds represent the last living dinosaur . . ." An early review described it, "lucid and entertaining," and Keith Thomson (paleontologist and former Dean, Yale's Graduate School) called it "a marvelous essay . . . it wonderfully captures the fluid state of our knowledge." Review from the *Library Journal* noted, "[Feduccia is] the perfect person to write a serious inquiry of the current reigning belief that the last dinosaurs evolved into present-day birds . . .," and another review noted, "his ability to deal with the new evidence in such an unbiased and creative manner is the mark of a uniquely sharp and innovative scientific mind." He was elected Fellow of the American Association for the Advancement of Science and Fellow of the American Ornithologists' Union, and won a Favorite Faculty Award from the Senior Class of 1997 at UNC. In 2000 he was a Smithsonian Distinguished Lecturer. Feduccia has appeared frequently on national TV and radio, including NPR, Voice of America, BBC, NHK (Japan) and McNeil/Lehrer Report, and is a popular university lecturer. He is also a member of the Oxford University Round Table. In 2008 the University of North Carolina established the Alan Feduccia Distinguished Professorship, in 2009 Chinese Paleontologists named the new species *Confuciusornis feducciai* for "his contribution to the study of the origin and evolution of birds," and in 2011 a Smithsonian scientist named the new avian genus *Feducciaavis* for his "many contributions to the study of fossil birds and his dedication to truth in the search for avian origins."