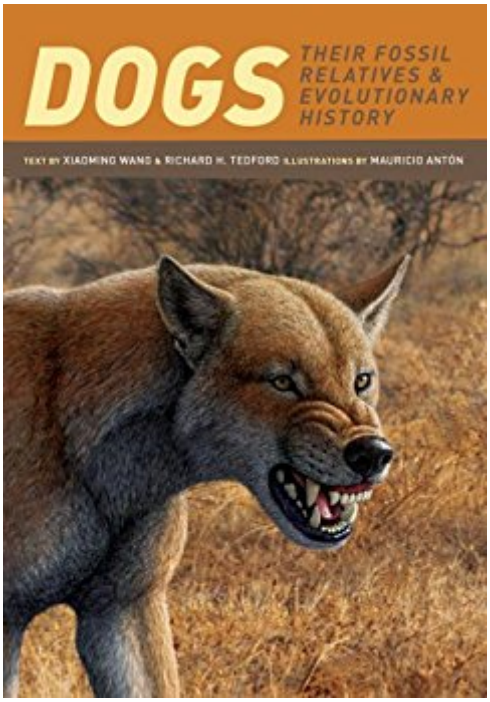
Dogs: Their Fossil Relatives And Evolutionary History



Synopsis

Xiaoming Wang and Richard H. Tedford have spent the past 20 years studying the evolutionary history of the family Canidae. Both are well known for having established the modern framework for the evolutionary relationship of canids. Combining their research with Mauricio AntÃƒÂ n's impeccable reconstructions of both extinct and extant species, Wang and Tedford present a remarkably detailed and nuanced portrait of the origin and evolution of canids over the past 40 million years.The authors cull their history from the most recent scientific research conducted on the vast collections of the American Museum of Natural History and other leading institutions. The fossil record of the Canidae, particularly those from their birth place in North America, are the strongest of their kind among known groups of carnivorans. Such a wonderfully detailed evolutionary history provides access to a natural history that is not possible with many other groups of carnivorans.With their rich fossil record, diverse adaptations to various environments, and different predatory specializations, canids are an ideal model organism for the mapping of predator behavior and morphological specializations. They also offer an excellent contrast to felids, which remain entrenched in extreme predatory specializations. The innovative illustrated approach in this book is the perfect accompaniment to an extremely important branch of animal and fossil study. It transforms the science of paleontology into a thrilling visual experience and provides an unprecedented reference for anyone fascinated by dogs.

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Customer Reviews

I finally got around to this book after retirement. My interest in fossil canids began with a field trip some years ago with the Los Angeles Museum of Natural History, to Red Rock Canyon in the Mojave Desert of California. I was excited about the possibility of finding bones of Epicyon, the biggest of the bone-crushing Borophagines, and got to meet the senior author of this book, Dr. Xiaoming Wang. As a non-paleontologist with some familiarity with the topic, I thought this book was semi-technical, with a readership target of those with more than a passing interest in paleontology. I found myself stopping to look up terms, not only in the glossary, but in references on anatomy (both books and on line). In other words, it was not an "easy read" for me, but well worth the effort. One tangible benefit of reading this book: while visiting a museum I suddenly realized that some mounted fossil skeletons that I had passed by quickly before could be "read" to indicate how the living animal walked, ran, and caught prey, and whether it most likely lived in forests or open plains. Although the focus of the book is dogs, the reader is given a solid introduction to what we know (and how) about evolutionary origins and relationships, anatomy and function, adaptation to changing environments and prey, and how dogs became our friends and companions. I highly recommend this book!

Our "best friend" has been with us for about 30,000 years and holds the title of being one of the first domesticated animal. If you go back even further in time to about 100,000 BP you might find the first lineage of the dog as it split off from the gray wolf. Of course, if you want the dog’s (carnivore’s) earliest ancestor you’d have to go back 65m or more YBP. This, then, is the subject of Xiaoming Wang’s incredible book. Wang is a noted paleontologist and geologist who just happens to be gifted writer. There’s a lot of information packed into this book (e-book), some of that information is quite technical, but all of it, technical or not, is very readable. The evolution of the dog is a fascinating story paralleling that of the cat and hyena and probably a few other carnivores as well. The author makes it all clear and covers, not only the dog, but a host of other creatures that shared this primeval world with the dog. You can’t really study an animal with out learning about it’s

environment as well. To this end Wang fills you in on the geological and climatic changes that have occurred over the eons. You will also get glimpse of the dog's hunting technics and social activities, using fossils and modern Canids as models. Migratory patterns, again using fossil locations, tell us how these versatile carnivores spread over the globe and changed to fit each new environment. This, at last, brings us back to the modern dog who has shared our camp fire for lo these many years. A few words about the art work: Mauricio Anton's many line drawings and superb color plates round out this wonderful book and bring life to the extinct animals mentioned throughout the narrative. The color plates come across as black & white in my Kindle but spring into glorious full color HD life on my iPad. Look for the plates at the very end of the book, after the index. I had no technical problems with this Kindle edition.Last Ranger

... and now I feel like I know a great deal. This is one of the most lucid, readable, and well-organized paleontology books I've read lately. Unlike many scientists writing for a general audience, Wang neither dumbs the subject down nor forgets that readers outside the field need a review of the basics before diving in. I knew very little about canid evolution before starting this book, and now I feel like I know a great deal, and enjoyed the process tremendously.

A decent book on canid evolution that is not for the casual reader. Very few stones are left unturned. The book can be rather dry at times, yet, it is a technical work. I spent an awful lot of time flipping back and forth to timelines to see where different species/genera fit into the scheme of canine evolution. In fairness to book, I read it over an extended period of time with traveling involved. I would recommend to any reader to make sure you have time to condense your reading schedule and plow through the wealth of information, in particular tooth structure/function, in this work in as short, but comfortable time span as possible for full appreciation. That said, it has moved to my re-read list for the future.

As another reviewer put it, this book gave me much more than I expected. I have heard a lot said about the derivation of the dog from the wolf many centuries or even millenia ago. The PBS show on the subject is one such program that comes to mind. But the evolution of dogs from a weasel-like ancestor over 35 million years ago? Who would have known that all but the last 3 million years of dog evolution happened right here in North America? The parallels between the hypercarnivore/generalist borophagines/canines of the Oligocene to Pliocene and the gorgonopsids/therocephalians of the late Permian are very intriguing.I have to give this volume fives

stars because there is no other work that fills this gap in animal diversity. I will think of dogs differently from now on. What a fantasitic voyage through deep time to see the remote ancestors of dogs!

If you're looking for the history of dog domestication, this isn't the book for you. That subject is treated in a few pages at the back of the book. If, however, you're interested in the evolutionary history of dogs, including all of the extinct forms, this is great. If you're reading it as a narrative it gets a bit slow in the middle as the author goes into depth about all of the different extinct forms, but that helps set up later chapters of the book about evolution, extinction, and ecology. There's a lot of information in this fairly small book, but I'll definitely read it again as I don't think I got everything out of it the first time through.