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## The Complete Guide to Prehistoric Life

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Tim Haines and Paul Chambers Firefly Books, 2007 ISBN-13: 978-1554071814

Recently, we have enjoyed reading extensively from a beautifully illustrated encyclopedic compendium *The Complete Guide to Prehistoric Life* by Tim Haines and Paul Chambers. We can now attest that the text is quite accessible to an enthusiastic 4<sup>th</sup> grader, which is (we think) a great complement<sup>1</sup> to the authors of this scientifically detailed text. In fact, we suspect that even much younger readers would find many thrilling things when navigating through this highly visual book. Even a precocious toddler may get an illuminating ride, provided she/he is assisted by an older sibling (a friendly one), a parent (not besieged by a PE editor about being embarrassingly late with a book review), or a kin selection agent (aunt, uncle, etc.).

So what is so great about the book? The compendium's encyclopedic scope makes the guide necessarily akin to a cookbook. That is, you don't read it for its plot. But, as with all successful encyclopedic renderings, its value resides in its detailed, beautifully illustrated, and lucidly organized descriptions. In this case, descriptions pertain to the most exciting topic of all: the fossils.

The Complete Guide to Prehistoric Life brings those long dead beasts back to life by highlighting intriguing biological details and offering remarkable photographic visualisations. If you are a fan of a particular fossil creature, you can go directly to the book index to find whether your favorite animal is included and where it may be located (chances are good, you will find your trophy!). You also browse can randomly and delight in discovering seemingly unthinkable creatures. including some fossil forms that even a professional paleontologist may not know-as the second author (who pretends to qualify for such a



lofty position) can confirm. Following a very short introduction, the book is arranged chronologically (from oldest to youngest), with every page or two dedicated to a spectacular extinct species. Stunning (photo-quality) computer images of ancient creatures abound, "fascinating facts" are frequently highlighted, and real photographic documentation of actual fossil remains is provided on occasions. Many other aspects of the guide deserve mention. We liked most of them, we disliked just a few, and we listed the most important of both below. We will leave it up to you to figure out which author is responsible for a particular item below. In some cases it is just one of us. In some cases it is both of us. So, here it

goes: We really enjoyed the short introduction for each geological period (e.g., p. 55), where the authors told us a bit about that period of time and provided a simplified map showing how the Earth looked then.

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http://palaeo-electronica.org/2010\_1/index.html

<sup>1. &</sup>quot;...any scientist who couldn't explain to an eight-yearold what he was doing was a charlatan." {Vonnegut, 1963, p. p. 32}

We found it helpful that photographs included familiar objects that told us immediately how big or small a given fossil was. For example, a camera cap adjacent to a dinosaur claw (p. 122) made us appreciate how amazingly huge that claw was. Similarly, the little simplified drawings of each creature, presented together with a human silhouette (e.g., p. 194), were very useful. It really helped us to appreciate the size of each creature. Likewise, the timescale provided on page 207 made it much easier to figure out time periods.

Adding simulated "film sequences" on the top of some pages was a nice touch. For example, two ornithopod bulls fighting during mating time (p. 128) truly brought those dinosaurs to life.

Photographic documentation of skeletal elements (for example, the skull of *Tylosaurus* on p. 132) was useful too. It made us appreciate the factual foundation for stunning visual reconstructions. We only wish that this was done more frequently throughout the book. While we enjoyed the colorful reconstruction images, we would prefer if more pictures of real fossils were provided. And no, this particular comment was not made by the second author (those who know him, do know that he truly is allergic to real data).

We did not like a too realistic (and real!) picture on page 160. This is a book that will likely attract many young readers who adore animals. Such bloody details should not have been shown. They are sad and brutal, when considered from a perspective of a young child who deserves a preteen time of unconcerned bliss. And they can cause problems for the publisher too. Consider the following. A mom decides to buy this guide for her 10 year-old daughter, who loves animals. The daughter sees the bloody, brutal scene on page 160 and starts to cry. The mother gets angry that the book includes such horrible pictures. And so on... All this may be a strange argument for an adult reader, but such brutal visual encounters are an unexpected and nasty surprise for young dinosaur fans yet unexposed to PG-13 movies. In any case, those pictures were not necessary here. Their non-necessity is demonstrated by their extreme rarity throughout the guide. They clearly were not needed.

We really, really, really liked the "Fascinating Facts". For example, we really liked the fact (page 171) that the wear on fossilized teeth suggests that *Hyaenodons* may have ground their teeth together in order to threaten their rivals.

We really, really, really did not like that the facts (such as the tooth wear in *Hyaenodons*) and

the corresponding hypotheses (teeth grinding to threaten their rivals) were both listed together as "Fascinating Facts". The "tooth wear" was a fact and the "teeth grinding to threaten the rival" was a hypothesis. We agree that both were certainly "fascinating", but how can we hope to educate future generations, if fundamental concepts are mixed so sloppily?

We truly disliked the book cover featuring a predictable Tyrannosaurus rex stupidly roaring at an equally predictable asteroid. Do we need to add that this totally expected asteroid was making an unsurprisingly spectacular explosive descent behind the dinosaur? If such a cliché cover must be used, how about having a picture with an asteroid impact in front of one of those haplessly doomed dinosaurs? And how disappointing it is that the authors, editors, and publishers did not consider using the giant arthropod Arthopleura as the cover hero. Or any other of the many spectacular non-dinosaur fossils included in the compendium. That would truly be a unique cover! But this is really only a minor problem considering all great qualities of this compendium.

Much more importantly, we have enjoyed the fact that the guide was so comprehensive. Not only did it include well known fossils (dinosaurs, celebrity fossil mammals, etc.), but it made a real attempt to provide a semi-comprehensive (even if still tetrapod biased) effort to look beyond dinosaurs. The inclusion of Cambrian invertebrate predators, Carboniferous giant arthropods, and many other non-dinosaur fossils is truly praiseworthy.

All in all, *The Complete Guide to Prehistoric Life* is a great encyclopedic compendium, especially for those who are interested in spectacular fossils or happen to have pre-college family members. The book also has a potential to evolve into a valuable teaching reference for K-12 educators, who develop courses that include aspects of paleontology and evolution.

Finally, in this sad age of overpriced books produced ad nausea by commercial editors, the price of this Firefly Book, at \$24.95 (US price), is truly remarkable and deserves the highest commendation. *The Complete Guide to Prehistoric Life* demonstrates that books of high visual quality can be produced at a very reasonable cost.

## REFERENCE

Vonnegut, K., Jr., 1963, *Cat's Cradle*, New Dell Edition, Dell Publishing, New York, 191 p.