



Southern Fossil Discoveries

Ice Age Giants of the South (Vol. 1)¹ Giant Predators of the Ancient Seas (Vol. 2)² Dinosaurs of the South (Vol. 3)³

reviewed by Judy Scotchmoor

¹by Judy Cutchins and Ginny Johnston
Pineapple Press, Sarasota, 2000, 48 pp.
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²by Judy Cutchins and Ginny Johnston
Pineapple Press, Sarasota, 2001, 64 pp.
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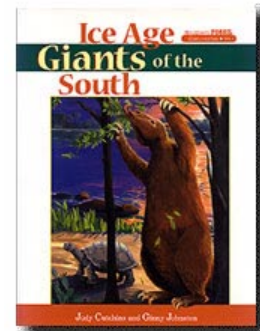
³by Judy Cutchins and Ginny Johnston
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Big and bizarre is great way to engage young readers and that is the highly effective hook used in each of the three books composing the *Southern Fossil Discoveries Series: Ice Age Giants of the South* (vol. 1), *Giant Predators of the Ancient Seas* (vol. 2), and *Dinosaurs of the South* (vol. 3). In these books, young readers learn about some of the giants that roamed the lands, flew the skies, or swam the seas of times past. At the same time, they learn about “who” else was there, what happened to them, who the modern counterparts are, what the climate was like, and they even pick up quite a bit of paleontology and geology. Included within the chapters are references to land bridges, estuaries, the formation of caves and sinkholes within limestone, and sedimentation.

What impressed me the most about these books is the emphasis on what fossils can tell us and how we know what we know. Readers learn about using fossils to determine age correlations,

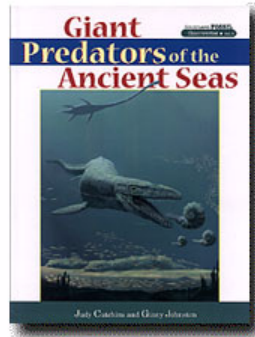
morphology to infer behavior, reconstructions to reveal form and function, fossils to determine habitat and climate, and comparisons to extant animals to infer behavior. The reference to using multiple lines of evidence, competing hypotheses, and revisions of

hypotheses based on additional evidence all give the readers a refreshingly accurate portrayal of the nature of science. In addition, the authors portray scientists as ordinary people of all ages. More than half of the photos of scientists include women, and reference is made to discoveries by students and other amateurs.



The authors obviously know their audience. The visuals are terrific, with lots of pictures of scientists doing science, informative maps, beautiful fossils well labeled, and absolutely wonderful illustrations by Judy Cutchins that portray times past. Two other design tools to be praised are the use of a bicycle as a measure of scale and the use of “post-its” to share interesting little tidbits with the reader. The post-its are particularly effective, allowing the reader to learn about something beyond the primary narrative without disrupting the storyline. Examples include additional details about teeth, looking at the present to understand the past, and how we estimate size.

Reading all three volumes would be the way to go, because each has its own strengths and together they do an excellent job in portraying past life and most importantly, how we know what we know. If one picks only a single book to read, I hope it *won't* be *Dinosaurs of the South*. Whereas the first two volumes do a fine job in portraying a sense of the complete ecosystems of past times, volume 3 concentrates almost entirely on dinosaurs (hadrosaurs, nodosaurs, theropods), *Deinosuchus*, and pterosaurs. The reader does not get a picture of who else was around during the “Age of the Reptiles” other than selected reptiles. I also would note that in the final section on extinction, the authors should be praised for including references to increased volcanism at the end of the Mesozoic, but their choice of words “a large asteroid may have hit the earth” gives the impression that the impact itself has not been confirmed, which is inaccurate. But in each



of these cases, a savvy teacher could easily assign an Internet search to counteract these weaknesses - e.g., develop a web quest to find out what other animals lived during the Mesozoic and/or what evidence is available to explain the extinction at the end of the Cretaceous. The strength of this volume is its clear description of the fossilization process and explanation of why fossils are so rare, and thus this book is an excellent complement to the others.

There are some additional weaknesses, such as using the word “theory” instead of “hypothesis” and “appeared” instead of “evolved” (although I did manage to find the e-word once in each of the first two volumes!). Referring to the Age of Reptiles and the Age of Mammals is an inaccurate generalization that is best avoided and the choice of organisms portrayed in each of the timelines has a distinct vertebrate bias. But these are minor compared to the strengths of the series. It is true that there is a purposeful Southern theme, but there are so few really good science books available for young readers and these are so well written that I would be tempted to use them in any classroom and encourage my students to do some research on what might be found in other areas of the U.S. and other countries during the same time intervals.

I highly recommend this series and commend the authors on packing a huge amount of information and good science into each of the books. Young readers will go away with a good understanding about life in the past, but even more importantly, they will gain a sense of how we know what we know about that life.

