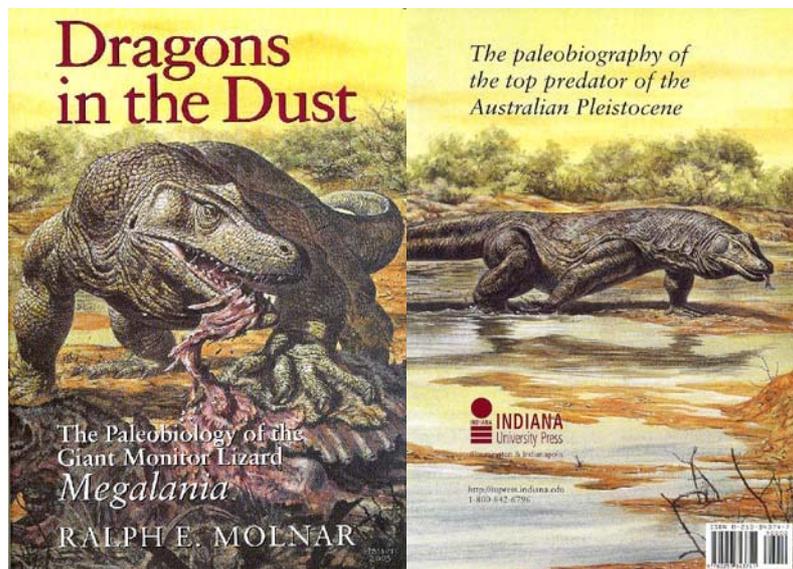


**Molnar, R. 2004. Dragons in the dust. The paleobiology of the giant monitor lizard *Megalania*. –  
Bloomington, Indiana University Press**

Book review by M. Signore



Books that discuss single extinct animals are common in the palaeobiological literature, and are usually informative enough to become readily accessible to the general public. The downside is that they are often shunned by those professionals who are not interested in the specific animal dealt with. This certainly does not apply to 'Dragons in the dust'. Although my field of expertise is theropod dinosaurs, I have read this book about the giant Australian monitor lizard *Megalania prisca* with utmost interest and attention. I have rarely come across a beautiful and informative piece of palaeobiological work such as this one!

On casual inspection, the subject discussed in Molnar's work might appear to be highly specialised and therefore poorly appealing to a general audience. Could a book about the Pleistocene of Australia and the history of an animal known from scanty remains, such as *Megalania*, be guaranteed to put off the lay people? I personally do not think so. If I may be allowed to draw the following comparison, then I would say that this book is as compelling reading as Tolkien's 'Lord of the Rings' in that its beginning is hard to follow (unless you are a specialist in Pleistocene biogeography of Oceania) but once you have read past the first few pages you will find yourself so deeply attracted to it that it will be difficult to put it down.

Molnar's style is at the same time straightforward but entertaining, immediate but accurate, and his words flow smoothly and pleasantly; this feature alone is a highly valued quality not easily found in palaeontology books. In general, the illustrations are of good quality. My only complaint is that there are no colour photographs or drawings. In the case of some illustrations, a better resolution should have been provided, and the use of colour would have added considerably to them. For instance, figure 3.1 (p. 73) is a little out of focus, and does not do justice to the majesty of *Megalania*. Also, figure 2.7 (p. 38) and 5.16 (p. 140) would have greatly benefited from a colour printing, because some details are lacking in the black and white reproduction.

The first two chapters include 63 pages of well-written and thorough description of the Pleistocene world, although the focus is on Oceania and, more in particular, Australia. The first chapter is a general overview of the Pleistocene. It provides a good and updated description of the climatic phenomena that characterise this period. Also interesting is the beginning of the second chapter which, although entitled quite dryly 'The Pleistocene in Australia', gives a good overview of the vertebrate finds in Australia, and explains why the vertebrate remains are so rare and hard to find in that continent.

Chapter 3 is a history of the discoveries of *Megalania*. Personally, being interested in the history of palaeontology, I found this chapter delightful and informative, very well-written, managing to become always interesting and never boring even when describing the different namings of the fossils. If you are not a history-lover, the punishment will be light, however, as chapter 3 is only 17 pages long. However, this chapter is very interesting even as regards the different interpretations and denominations of similar but otherwise distant (in space) fossils.

Chapter 4 concerns the phylogeny, palaeogeography, and history of the varanids (monitor lizards), in particular *Megalania*. This section is informative, always well-written and gives an up-to-date overview of the relationships and evolution of the varanids (in particular the over 40 extant species of the genus *Varanus*). The

chapter ends with the question “Is *Megalania* a valid genus?” Molnar posits that *Megalania* could be a synonym of *Varanus* and, therefore, should be more correctly named *Varanus priscus*. In his opinion, *Megalania* represents a very specialised Australian radiation of the genus *Varanus*; however, the author retains ‘megalania’ as a vernacular name throughout the book.

Chapter 5 is an example of how a palaeobiology book should be written. In this chapter, Molnar tackle the problems of reconstructing the palaeobiology of an extinct animal whose remains are scanty, but whose relatives are still living (only very much scaled down in size)! He combines morphometric, ethological, physiological and ecological data from living *Varanus* species and draws extensively from several fields of palaeobiology and actuoecology, to formulate sound hypotheses about the life-style of *Megalania*. A comprehensive reference list and a large number of tables and graphs add much value to this section of the book. The presentation of the data is lively and interesting.

Chapter 6 deals with the evolution of the varanids and the question of why *Megalania* became so large, and contains a highly informative section on the ecological and biogeographical causes for gigantism, insularity, predator-prey relations. Molnar draws his conclusions also from the thorough discussion of the physio-ecological advantages and drawbacks of the reptilian predators compared to the mammalian (both placental and marsupial) fauna. He then uses all the data gathered to create a sound explanation of why *Megalania* became so large, and why it became extinct at the end of the Pleistocene.

The book ends with a small interesting chapter summarising the evidences we have to reconstruct all the aspects of the palaeobiology single extinct animal.

In summary, Molnar’s book is an excellent exercise in palaeobiology, and the methodology followed in this volume should be taken as a standard in palaeobiology. Moreover, this book is recommended to both specialists in the field, general palaeontologists, and the lay people because of its style, and of the wealth of information in it. And don’t forget the title...dragons are always strong in the human mind.

Molnar, R. 2004. Dragons in the dust. The paleobiology of the giant monitor lizard Magalania. – Bloomington, Indiana University Press. 224 pp. ISBN 0-253-34374-7. Price US\$ 35.00 (hardback).