

differences in Darwin's finches on various Galapagos Islands, can be answered within the creationist model.

Chapter 2 dealt mainly with genetics. Chapter 3 progresses into the origin of species — Darwin's main concern in his first book. Here is where a little-appreciated scientific problem is encountered. This is the problem of what is a species. The definition appears to be quite subjective and does not correspond in many cases to the Genesis 'kind'. If you cannot define a species, it is difficult to make a case for the origin of a species. According to the imprecise definition of a species, there have been many 'speciation' events in the past. These events are not evolution in action, but likely just sub-species that became what is called 'reproductively isolated'. Especially revealing is that macroevolution needs new genetic material, while 'speciation' actually reduces the genetic variety within a species.

Chapter 4 is a good, well-written chapter on the fossil record. The fossils do not square with the expectations of evolution, but the gaps in the fossil record are as expected from the theory of intelligent design. A short section is given to the new theory of punctuated equilibrium, which could be described as an argument from lack of data. However, punctuated equilibrium cannot account for the large gaps in the fossil record. Most of the chapter is devoted to the few cases of claimed transitions, including the newly-discovered supposed transition between a mammal and a whale. A case is made that *Archaeopteryx* is a mosaic, like the

duck-billed platypus.

Chapters 5 and 6 go together and deal with the comparative anatomy 'proof' of evolution. Chapter 5 covers macrostructures and Chapter 6 is on biochemicals. For many years I mostly ignored the comparative anatomy, or similarity implies descent, argument for evolution, thinking creationists had already answered the question quite well. Using it as proof of evolution seems like a logical fallacy to me. However, the importance of comparative anatomy to the evolutionists was brought home to me when I attended my daughter's required class on evolution for her B.S. degree in biology. Much of the course dealt with the fine-detailed molecular comparisons that are used to derive evolutionary ancestry. Those similarities that do not imply ancestry were simply dismissed by lumping them into 'convergent' or 'parallel' evolution. These two chapters tell a more complete story to what can seem to the unwise like overwhelming proof of evolution in a high school or college classroom. This is where the panda enters the book and illustrates the fallacies of comparative anatomy. Although the giant panda and the red panda are very similar in many ways, these similarities do not count for deriving their evolutionary pedigree. The giant panda is classified in the bear family and the red panda in the raccoon family by most taxonomists. (Incidentally, to the credit of her evolutionist teacher, my daughter ended up with an A+ for the course, even after politely bombarding the teacher with many questions all semester and

discussing Creationism with him for several hours after class.)

As in practically all books, there are usually some flaws. I could detect only two. In the chapter on the origin of life, the authors state that within the evolutionary paradigm, atmospheric convection currents would keep synthesized amino acids high in the atmosphere to be attacked and destroyed by ultraviolet light. Actually, convection currents would allow for quicker atmospheric mixing of any newly formed organic molecules from the top to the bottom of the atmosphere. This flaw does not negate their argument that ultraviolet light would tend to destroy any organic molecule that was synthesized high in the atmosphere.

The second flaw is stating that design adherents would include *Homo erectus* with the apes. Although somewhat controversial, I believe there is much evidence to include *Homo erectus* within the family of man.¹ I believe most creationists have also come to this conclusion.

The book is highly recommended as a supplement for high school biology classes. It offers a well-articulated case for intelligent design — a second opinion on the subject of origins, which is a more scientific methodology. It is also good for anyone who wants a clear presentation of the major arguments for intelligent design in the field of biology.

REFERENCE

1. Lubenow, M. L., 1992. **Bones of Contention — A Creationist Assessment of Human Fossils**, Baker Book House, Grand Rapids, Michigan.

QUOTABLE QUOTE — Palaeontology and Fossils

'Few sciences produce such abundant returns from so few fragments of fact as palaeontology.'

Nigel Hawkes, **The Times** (London), 23 September 1994; as quoted in **Geology Today**, vol. 11, no. 1, 1995, p. 5.