

## BOOK REVIEWS

INTRODUCTION TO THE PRIMATES. By Daris R. Swindler. Seattle: University of Washington Press. 1998. 336 pp. 42 photos, 72 line drawings. ISBN:0-295-97704-3 \$22.00 (paper).

This small volume by Daris Swindler, the most recent of his efforts to communicate with the academic community, consists of 11 chapters that span a wide range of subjects: primate evolution, morphology, growth, genetics and behavior. This is an ambitious effort, particularly given the relatively brief length of the volume. Inevitably, one compares it with the other primate text of comparable breadth, John Fleagle's *Primate Adaptation and Evolution*. This, however, would be an unfair comparison for, as Swindler states in his preface, "This book is meant as a beginning resource. For many it will be complete in itself; for others it will provide the background necessary for further studies. For all readers, it is hoped the material will be interesting."

Given this perspective, the book succeeds. As I read it, the book provoked recollections of my own fascination, decades earlier, with biological anthropology when, as a neophyte, first I began to appreciate anthropology for its breadth, its eclecticism, and the inherent fascination of its human and nonhuman subjects. Swindler admirably displays the anthropological universe as if on a platter, with its many delectations that await those who seek to look further. He is a worthy guide to the field, for his work has contributed greatly and inspired many. His own significant scientific contributions to primate morphology repeatedly emerge. I see this volume as an appetizer. I anticipate that it will succeed in whetting appetites for more, and I suspect that its most appreciative audience will be those who are gaining their initial exposure to the field.

The book begins with a delightful chapter on Monkeys and Apes in History, then proceeds through Classification and Distribution of Living Primates; Blood Groups; Chromosomes and DNA; The Skull, Teeth, Diet, and Digestion; The Brain and Special Senses; The Skeleton and Locomotion; Growth and Development; Social Groups and Primate Behavior; and Fossil Primates. It concludes with a chapter on Primate Conservation. With 336 pages, multiple illustrations and photographs, and 11 chapters, the arithmetic alone obliges that each substantial topic be only cursorily treated. Accordingly, it is not surprising that Swindler's strengths in anatomy and cranio-dental morphology come through most strongly.

However, despite Swindler's overall clarity of expression, there are areas where the reader may be befuddled. The lack of consistent treatment of a particular topic makes it occasionally difficult for the new student of anthropology. Regrettably, these difficulties are compounded by illustrations that are wrongly labeled (many occasions) and presentation of both well-substantiated and marginal observations as though they were of equivalent validity. For example, the organization of the extant primates into a systematic chart is something beginning students must wrestle with, but readers of this volume are not helped by learning on page 33 that there are 14 species of apes (not named), while on page 56 in the section on the Apes, only the two chimpanzee species are named, with *Gorilla*, *Pongo*, *Hylobates*, and *Symphalangus* mentioned only at the generic level. Similarly, in Table 2.1, "Classification of Living Primates," only *Hylobates* is listed among the Hylobatidae, and in Figure 2.7, Hylobatids are not even placed on the world map of the geographic distribution of living primates. Further, the use of taxonomic categories of semisuborder and tribe without their definition serves to merely multiply the number of terms with no heuristic advantage. The alternating levels of complexity will require that ambiguous sections in the text be explicated by faculty teaching the course for which this volume is assigned.

The illustrations certainly add to the book, but could have been more informative by careful proofing. For example, the absence of a scale in Figure 2.6 depicts *Microcebus* (~60 g) as virtually the same size as *Indri* (6 kg) or even *Pongo* (~60 kg)!! While this is obviously not a problem to the

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more advanced student, it is for the beginner. And beginners suffer further in that a number of the captions to the line drawings are wrongly labeled. On p.146 the lateral border of the scapula is labeled medial; on p. 141 superior and inferior directions are labeled anterior and posterior. More substantively, the line drawing of a cercopithecoid posterior on p. 153 is definitely not of a baboon male — it has separated callosities and a stubby tail, neither of which are male baboon features. Regrettably, there are numerous spelling errors. The following misspellings appear scattered through the volume: Indria/Indris; Tarsius spectrum, Galago demidovi, hamadryus, Presbytes, mangaby, medula, iscium, Ruffled lemur, Indris, altrical, parturation, medula, bevavioral, bicornute, ontogentic, incompatability, ontogeny, heterchrony, agression, Cebula, Papiro anubus, Alouatta seneculus, Lipilemur.

The section on social behavior is perhaps the weakest, and reveals an appreciation of primatology little influenced by the achievements of the last 20 years. With so little space available for commenting on the most significant aspects of primate behavior, is it surprising that Swindler spends a paragraph describing cooperative hunting in baboons — a behavior never reported by observers who have spent decades studying these species !!! Certainly cooperative hunting is an important behavioral feature of hominids and certain chimpanzees, but presentation of this unsubstantiated report will truly confuse students of primate and human behavioral evolution. The treatment of dominance, admittedly a complicated topic for so little space, results in comments about dominant animals assuming "leadership of the group" despite a broader view of dominance afforded female primates in the following paragraph, where it is observed to be largely relevant to events occurring around food. It is also surprising that Carpenter's studies of vocalizations are described, while Cheney and SeyFarth's studies on specificity of vocalizations in vervet monkeys is omitted. Similarly, Goodall's studies of tool use among chimps is described, but not the more recent studies of continent-wide variation in patterns of tool use in chimps. One cannot help but note the absence of recent important studies of great ape communication in favor of description of the early (also important) work of the Gardners and Hayes.

In the paleontology chapter certain unreferenced assertions, such as "the Paleocene Plesiadapiformes made up some 39% of the fauna," are difficult to evaluate, but seem to me to be unlikely. In the genetics chapter, I found that certain definitions were not helpful. For example, inversion is defined as "turning pieces of chromosomes upside down" and translocation is defined as "exchange of material between chromosomes." The implication of symmetry in the latter definition makes translocation difficult to discriminate from meiotic crossing-over.

Let me conclude by adding that the reader should not overinterpret these observations, for I consider this volume a worthwhile addition to the already substantial contribution made by Swindler to Anthropology. It is a truism that breadth often requires sacrifice of depth, and this inevitably happens here. But again, I am drawn to the primary purpose of the volume and the extent to which it succeeds. The young student of Anthropology will doubtless find much here to fascinate, and the spirit of excitement that lured many of us infuses the volume.

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## LITERATURE CITED

Fleagle J. 1999. Primate Adaptation and Evolution (2nd edition). New York: Academic Press.