

Barely Known Species

The New World Primates. Adaptive Radiation and the Evolution of Social Behavior, Languages, and Intelligence. MARTIN MOYNIHAN. Princeton University Press, Princeton, N.J., 1976. x, 264 pp., illus. \$12.50.

The classic study of a New World primate (*Alouatta palliata* Gray) by C. R. Carpenter in 1932 inaugurated the modern era of primatology. Since that auspicious beginning New World primates have been neglected while students of primate behavior have concentrated on Old World species. Part of the reason for focusing on Old World primates, particularly terrestrial species, has been the greater ease with which they can be observed. In addition, their closer relation to man has spurred interest in these species as potential models for protohominid behavior. This reliance on primarily terrestrial primates for evolutionary perspectives is surprising, since much of the evolution of the order occurred in an arboreal milieu.

The appearance of *The New World Primates* signals a broadening of primate research to include New World habitats, motivated partly by a desire to understand the role that the selection pressures of an arboreal environment have played in primate evolution.

This book is the first to deal with all New World primates in a comparative manner. Unfortunately, as was the case in the early stages of studies of Old World primates, the data available are meager at best. Moynihan is aware of this and uses many qualifying words such as "probably," "maybe," and "possibly" throughout the book. He writes that the book "is not meant to be a comprehensive or balanced summary of the whole of the biology or even the ethology of New World primates: rather it is a series of descriptions and discussions of special topics that seem . . . to be significant, suggestive, or amusing" (p. x).

In the first half of the book Moynihan briefly describes the neotropical environment and then summarizes the natural history data on New World primates. It is this part of the book that reveals how impoverished the available data on neotropical primates are, both in kind and in quantity.

The remainder of the book, except for two final chapters that seem to be an afterthought, is devoted to supporting Moynihan's hypotheses concerning social organization and communication by applying the data elucidated earlier. Moynihan appears to be at variance with other students of primate social behavior when he suggests that ceboid social organization may be independent of ecological constraints (p. 117). Several other proffered hypotheses that may stimulate debate are: that increased sexual activity is a means of controlling intraspecific aggression where predator pressure has selected for increased aggression (pp. 118-123); that primate species with large territories and rapid locomotion are more likely to associate in mixed-species groups (p. 142); that large body size and gregariousness favor increased intelligence (pp. 211-219); and that the principal selection pressure for increased verbalization was tool use (p. 183).

The New World Primates does not fill the void that exists in regard to neotropical primates, nor does it claim to. But it is a harbinger of things to come. It has some of the faults of a pioneering effort in that the data available are insufficient to substantiate or refute many of the theories it presents. Yet in assembling what is available the author of such a book challenges as well as informs the reader. Enterprising graduate students should find *The New World Primates* to be a stimulus in formulating research problems.

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