

Old World Monkeys. Edited by *Paul F. Whitehead and Clifford J. Jolly*, Cambridge University Press, Cambridge, United Kingdom, 2000, xii + 528 pp., \$115.00 (hardback).

Reviewed by Eric Delson^{1,2}

In 1969, John and Prue Napier led a Wenner-Gren conference on “The systematics of Old World Monkeys” whose results were published in a landmark edited volume *Old World Monkeys* (Academic Press, 1970). As they described in their introduction, the goal of the conference was to bring together a group of specialists in “anatomy, physiology, behavior, ecology, zoogeography, paleontology, molecular biology, and genetics” in order “to develop a basis for revising the systematics of the Cercopithecoidea”. The book was a turning point in the study not only of cercopithecids but also of other nonhuman primate groups: they could be intensively studied on their own, without direct reference to their implications for human evolution. I read the book avidly on its appearance, while I was in the midst of researching my own dissertation on cercopithecoid paleontology, and it has often inspired my subsequent research.

Thirty years later, Paul Whitehead and Clifford Jolly organized an interim update on the volume, using the same title. The new book includes 19 chapters, as did its predecessor, though the focus is no longer on systematics but more broadly on all aspects of cercopithecoid biology.

In the 1970 volume three chapters are examinations of morphological, molecular and behavioral input to systematics; one is a survey the then-limited paleontology of the whole family, while another is John Napier’s attempt to reconcile interpretations of paleoecology with modern adaptations; two chapters are assessments via molecular systematics; two are considerations of morphology and adaptation (one by Jolly, raised issues about the relationships of *Papio*, *Mandrillus* and *Theropithecus* which are debated in the current volume); two more are classical studies of specific systematics and biogeography; and one (by Colin Groves) is a major re-evaluation of Asian colobine systematics and phylogeny. Five of the 6 papers on aspects of behavior and ecology were non-systematic in thrust, though Struhsaker tried to draw phylogenetic information from a study of guenon vocalization. The concluding chapter is a review of cercopithecoid species-level taxonomy by

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Thorington and Groves, which had a major impact on classifications through the 1970s.

The 2000 volume has a rather different topical distribution. The editors begin with a broad survey of research since the Napiers' book. Two chapters are reports on family-wide systematic studies based on cladistics, which was hardly known in 1970. Groves offers an analysis of morphological (mainly cranial) features of two groups, the genera of Cercopithecinae and the species of *Cercopithecus*. The results are hard to interpret as the characters are neither clearly defined nor illustrated, and I disagree with some of his subjective scoring. Balancing Groves' chapter is one by Disotell, using molecular data, which specifically evaluates (and often rejects) phylogenetic hypotheses produced by Groves and other morphologists. The impact of molecular systematics is no less great among primates than in any other group, and Disotell was among the first to accept what morphologists have long required: including multiple individuals of multiple taxa in order to understand variation. The paper by Rogers on such molecular variation in baboons is grouped with the preceding two despite its lack of phylogenetic implications.

Two chapters are examinations of paleontological topics. Gundling and Hill review the stratigraphic record of cercopithecids in eastern Africa, but though their work brings new information about the Tugen Hills sequence, it suffers from some errors and gaps in other areas. Benefit summarizes her work on two distinct but related aspects of cercopithecoid phylogeny: the oldest well-known monkey, middle Miocene *Victoriapithecus*, and the dietary and environmental implications of molar morphology. She continues to press her interpretation that because cercopithecine cranial morphology is more similar to that of *Victoriapithecus* than that of colobines is, the former group must be relatively more primitive (or conservative), in contrast to the interpretations of Vogel, Groves, Delson and others in the 1970s. But Benefit has not sufficiently considered a possible alternative, that *Victoriapithecus* is already on the cercopithecine branch, as also suggested by aspects of its forelimb and pedal morphology.

Of the remaining chapters in Whitehead and Jolly (and several are hard to classify due to their breadth of vision), 3 are examinations of craniofacial morphology; one morphology and life history; 2 on endocrinology as related to behavior; and 7 broadly treat behavior. Among them 2 are studies of social behavior, 2 on socioecology, 1 on locomotor behavioral ecology, and 1 on cognition. Finally a chapter by Oates and colleagues continues the tradition of analyzing sound spectrograms to derive phylogenetic information.

Many of the papers will be important milestones in the areas they consider, and the volume as a whole serves as a valuable stocktaking of cercopithecoid research. The editors would have done well to better integrate the

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chapters, so that the result would have been a unified book rather than a fine journal issue in hardcover. Nonetheless, it is truly a fitting tribute to the perspicacity and influence of John and Prue Napier.