

## Primates: swinging through the trees . . .

*Primate Locomotion*. Edited by Farish A. Jenkins, jun. Pp. xii + 390. (Academic: New York and London, January 1974.) \$34.00; £16.30.

THE disadvantages of the current tendency to publish compilations of invited articles on specialised subjects are numerous. Though books of this kind have undoubted advantages, common to convenience foods and package holidays, they lack the combination of authoritative overview and synthesis of the single-author volume. One of their most serious weaknesses is that, being invited articles, they escape the wholly desirable quality control that anonymous referees and a critical editorial board can impose. Furthermore, the incautious reader may suffer in a different way when he discovers that only some of the articles are really new. Too often their substance, if not their dressing, has already been published elsewhere.

The principal fault of *Primate Locomotion* is the lack of overview and synthesis. With two or three exceptions the articles are new. They are generally of a high standard, lively, well presented and illustrated. It is apparent that currently at least two major problems are engaging the interest of

workers in the fields of anatomy, primatology and primate palaeontology. One of these—the arboreal ancestry of primates—is long overdue for resurrection; the other—brachiation and human ancestry—is a prime candidate for interment.

Cartmill sets the scene for the former in his discussion of the relative adaptive values of the clawed paw and the prehensile hand for arboreal life. He asks fundamental questions and supplies convincing answers illustrated by a wealth of comparative data from other mammalian groups. Too little attention has been paid in the past, as in this otherwise excellent chapter, to the sensory aspects of hand function. A hypothesis of the primacy of arboreality in the evolution of monkeys and apes is incomplete without consideration of the role of the peripheral sense organs.

Chapters from Farish Jenkins on former in his discussion of the relative locomotion of treeshrews, by Szalay and Decker on the evolution of the primate tarsus and by Walker on the locomotion of present day prosimians, pursue this theme. Jenkins's paper, as becomes an editor's contribution, is particularly sound and lacks any element of witch-hunting which diminishes the stature of some of the other articles. I particularly like Jenkins's final sentence which runs: "The adaptive innovation of ancestral primates was not the invasion of the arboreal habitat, but their successful restriction to it".

The brachiating theme is pursued in the chapters by Lewis, by Roberts on the structure and function of the scapula, and by Tuttle and Basmajian. O. J. Lewis states his views once again on hominoid wrist morphology which lead him to espouse Sir Arthur Keith's theory of the brachiating origin of man in spite of the fact that Keith was basing his views on the gibbon, which Lewis clearly rejects from human ancestry on the grounds of wrist morphology.

Tuttle and Basmajian, reporting on an electromyographic study of forearm muscles of the gorilla, give considerable space to the well aired subject of knuckle-walking in African apes. Their contribution to the brachiating issue is, however, both moderate and sensible.

A valuable chapter on the mechanics of locomotion in primates by Badoux, an account of leaping in galagos by Jouffroy and Gasc and an interesting article on the much neglected field of postural activities in Old and New World monkeys by Michael Rose, complete the volume.

*Primate Locomotion* is an important source book for the graduate reader but the lack of overview and synthesis makes it an unsuitable text for the student.

J. R. Napier

## . . . and adapting to other situations

*The St Kitts Vervet*. By Michael McGuire. (Contributions to Primatology. Vol. 1). Pp. xi+202. (S. Karger: Basel, London and New York, 1974.) Sfr 56; £8.10; \$17.40.

VERVET monkeys were introduced to St Kitts, probably from West Africa, in the latter part of the seventeenth century. Today, they are common both in scrub-covered coastal areas and in the forested ravines running up into the island's central massif, and population densities are similar to those observed in several African field studies. McGuire's monograph reports the results of 6,300 hours of observation by nine observers in nine study areas, and covers population demography, activity patterns, social organisation and communication. Two main findings emerge. First, groups living in the ravines differ in dispersion, activity patterns, and in the frequency of grooming and agonistic interactions from those living in the coastal scrub. Second, 19% of the (54) communicative gestures observed in East African vervets by Struhsaker and 44% of the (48) vocalisations were not recorded in the St Kitts population.

Both comparisons make an important contribution to our knowledge of the adaptability of primate behaviour. Unfortunately, they are spoiled by inadequate quantification. In the first, the reader is asked to take on trust many of the suggested differences and no quantitative evidence is either shown or referred to. Where this is not the case, description of sampling methodology and sample size is scanty and no attempt is made to test the significance of the observed differences. In several cases, the measures used are inappropriate: for example, the "general tension state" of each group was measured by estimating its flight distance from an observer. Comparison with Struhsaker's study is largely confined to qualitative differences and is free from these objections. But the reader is required to accept the author's opinion that the absence of the communication patterns observed by Struhsaker is not the product of differences in classification rather than in behaviour.

A second major criticism of the monograph is the amount of turgid and unnecessary discussion which it contains. This suggests that, despite the impressive list of series editors on the front cover, little editorial attention was paid to the manuscript. As a result, material which would fill two medium length papers has expanded into a 200 page book.

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