

# The local distribution of highly divergent mitochondrial DNA haplotypes in toque macaques *Macaca sinica* at Polonnaruwa, Sri Lanka

G. A. HOELZER,\* W. P. J. DITTUS,† M. V. ASHLEY‡ and D. J. MELNICK§

\*Departments of Biology and Environmental Resource Sciences, University of Nevada Reno, Reno, NV 89557, †National Zoological Park, Smithsonian Institution, Washington, DC 20008, USA and Institute of Fundamental Studies, Kandy, Sri Lanka, ‡Department of Biological Sciences (M/C 066), University of Illinois at Chicago, Box 4348, Chicago, IL 60608, USA §Genetics Laboratory, Department of Anthropology, Columbia University, New York, NY 10027, USA

## Abstract

Surveys of mitochondrial DNA (mtDNA) variation in macaque monkeys have revealed extremely high levels of intraspecific divergence among haplotypes. One consistent pattern that has emerged from these studies is that divergent haplotypes are geographically segregated so that sampling a few matrilineal lines from a given region shows them to be identical, or a closely related subset of haplotypes. Geographically structured mtDNA variation has also been commonly observed in other taxa. In this study, haplotype variation and distribution are studied in detail within a local population of toque macaques. The results show that highly divergent haplotypes, differing by 3.1% in their nucleotide sequences, coexist in this population and that they may be spatially segregated even on this micro-geographic scale. Furthermore, these differences are maintained between social groups that exchange male migrants, and thus nuclear genes, frequently.

**Keywords:** biogeography, dispersal, genetic divergence, *Macaca sinica*, mitochondrial DNA, social structure

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