Growth and Sexual Dimorphism in a Population of Hybrid Macaques

Staff: M. A. Schillaci, J. W. Froehlich and J. Supriatna
Students:
Sponsors:
Email: schillaci@utsc.utoronto.ca ysupri@ui.edu; ysupris@yahoo.com

Growth and sexual dimorphism have long been the focus of investigation for researchers interested in the life history and socioecology of nonhuman primates. Previous research has shown that sex differences in the duration of growth, or bimaturism, are primarily responsible for the sexual dimorphism observed in anthropoid primates with multimale–multifemale social structure, such as macaques. The present study investigates sex differences in patterns of craniofacial and somatometric growth relative to head and body size and relative to dental development in a population of hybrid macaques (Cercopithecidae: Macaca) from Sulawesi, Indonesia. How these patterns may contribute to sexual dimorphism in this hybrid population is also examined. The results of the study suggest that there is no substantial effect on the levels of sexual dimorphism associated with hybridization in these macaques. Although sex differences in patterns of size-related, or allometric, growth patterns play a significant role in the development of sexual dimorphism for some cranial dimensions in these hybrids, bimaturism seems to be the primary component in the ontogeny of sexual dimorphism in this hybrid population. The observed levels of hybrid dimorphism and the predominant ontogenetic pattern of bimaturism characterized by prolonged male growth are consistent with previously published reports on dimorphism and growth in other cercopithecine primates.