SOCIAL DYNAMICS OF MALE MURIQUIS
(BRACHYTELES ARACHNOIDES HYPOXANTHUS)

by

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Summary

We investigated patterns of sociality among wild male northern muriquis (Brachyteles arachnoides hypoxanthus) to explore some of the possible ways in which within-group scramble competition might shape their social and mating strategies. The 13 adult males in our study group spent an average of 54.5 ± 4.2% of their time in proximity to at least one other adult male. They were more likely to associate with one another, but not with adult females, when they were resting than when they were feeding. Embrace rates were positively related to the proportion of time males spent in proximity during resting. Males that associated closely with one another tended to interact more often, although individual differences in male social styles and rates of interactions were apparent. Young adult males had significantly higher social maintenance rates than the oldest males in our sample, but no other effects of age were detected in any of our other behavioral comparisons. In roughly 20% of all dyads, one male

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valued the association significantly more than the other. Males tended to value associates with higher mating success than themselves, and to share access to the same females on the same days with their closest associates. Neither of the two pairs of maternal brothers in our study group were important associates to their kin, but brothers shared copulations in the same polyadic copulation partnerships with one another. Although still preliminary, our findings suggest that muriqui males differentiate among their possible social partners in ways that may minimize the variance in their mating success under the unusual conditions imposed by scramble competition for reproductive opportunities.

Introduction

Variation in the type and strength of affiliative relationships among same-sexed primates is typically explained by the benefits of cooperating with other group members in between- and within-group competition over access to resources such as food or mates (Wrangham, 1980; van Schaik, 1989; van Hooff & van Schaik, 1992, 1994; Chapais, 1995; Sterck et al., 1997). For example, philopatric kin may cooperate in between-group contest competition, but social relationships among them reflect the degree to which competition within groups involves either contests over defensible resources or scrambles when resources cannot be defended (Goldberg & Wrangham, 1997). Thus, philopatric female primates can be classified either as ‘resident despotic,’ when within-group contest competition for food resources results in hierarchical relationships, or as ‘resident egalitarian,’ when within-group scramble competition relaxes the benefits of maintaining differentiated relationships (Sterck et al., 1997).

Despite theoretical and empirical advances in our understanding of the effects of different competitive regimes on female bonding, comparatively little is known about how the dynamics of contest versus scramble competition influence social relationships among males (van Hooff, 2000). Like the effects of food on females, the spatial and temporal distribution of females should affect the degree to which fertilizations can be monopolized. When females form large or fluid groups, experience extended or synchronized estrus, or choose to mate with multiple partners, the abilities of males to monopolize females are constrained and scramble competition among males is induced (van Hooff & van Schaik, 1992). Yet, because fertilizations cannot be shared the way that food can, male relationships tend to be more competitive (van Hooff & van Schaik, 1992, 1994), and their affiliative bonds less common and less stable than those among females (van Schaik & Aureli, 2000).