Infant handling by adults other than the mother occurs to varying degrees across primate species and social organizations. Among males infant handling may reflect kinship-based affiliation, bond formation or a reproductive strategy that facilitates access to the mother. Spider monkeys (Ateles spp.) exhibit male philopatry and therefore males may preferentially handle male infants as they could be potential future allies. To investigate this hypothesis, all occurrence data were collected from January 2007 to December 2009 on a community of 35 wild spider monkeys at Runaway Creek Nature Reserve, Belize. During 555 hours of observation, 59 infant handling bouts and 12 infant handling attempts were recorded. All of the 11 infants were handled by individuals other than the mother during the study period. Handling of infants by adult, sub-adult and large juvenile males was the most common [N=48, or 81% of all bouts]. Infant handling by adult, sub-adult and large juvenile females was less common [N=11, or 19% of all bouts], but a higher proportion of handling bouts by females resulted in prolonged infant carries [0.36 for females; 0.10 for males]. Individual adult and sub-adult males varied with respect to their probability of handling an infant [Pearson $X^2=14.25$, df=4, p<0.05]. The sex of the infant did not affect how often it was handled by males [Pearson $X^2=3.84$, df=1, p=0.36]. As all infants born in a male philopatric group are presumed to share some degree of paternal kinship, we suggest that male infant handling in A. geoffroyi reflects kinship-based affiliation or tolerance.

Keywords: infant handling, male affiliation, male philopatry, Ateles