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## PROGRAM





birth season (September-February). The species is diurnal and cathemeral, with night-activity peaks coincide with lunar cycles. Groups consist of up to nine members, including one or two breeding females. Like other lemurs, the bandro shows female dominance and territoriality. Within dense vegetation, females lead the group in most instances, whereas first crossing of water-channels occurs equally often by both sexes. Although able to swim, they avoid the water whenever possible. Here we will discuss these 'life history characteristics' in the context of adaptation to lakeside living.

ABSTRACT # 210

**ECOLOGICAL CORRELATES OF SPATIAL DISPERSION IN SPIDER MONKEYS (ATELES GEOFFROYI)**

G. Ramos-Fernandez<sup>1,2</sup> and B. Pinacho-Guendulain<sup>1</sup>

<sup>1</sup>Instituto Politécnico Nacional, CIDIR Unidad Oaxaca, Hornos 1003, Santa Cruz Xoxocotlán, Oaxaca, Oaxaca, 71230, Mexico, <sup>2</sup>Asociación Mexicana de Primatología A.C.

High fission-fusion dynamics are characterized by a large variation in subgroup size, composition and spatial dispersion, which are presumably related to the variation in resource distribution and abundance, both in time and space. Here we explore some of these relationships using one year of data (1358 hours) collected on a habituated group of spider monkeys in Punta Laguna, Yucatan, Mexico. Dispersion was estimated by the distance separating the two farthestmost individuals within a subgroup and by the average distance between all individuals in the subgroup. At a larger scale, the distance separating two different subgroups was measured using their simultaneous GPS locations. A phenological transect with the most important species in the monkeys' diet was censused twice a month. While subgroup size was not significantly affected by any of the ecological variables tested, subgroup dispersion and the number of fissions increased with the average and variance in the proportion of trees with fruit across species, but not with the density of trees with fruit. During fruiting periods of *B. alicastrum* (a highly consumed, very abundant but localized species), subgroups are less dispersed and fission less, while remaining closer to other subgroups, than during other periods. Consistent with the predictions of existing ecological models, the temporal and spatial heterogeneity of the foraging environment seems to be an important influence on fission-fusion dynamics. Funded by CONACYT J51278.



ABSTRACT # 211

**PSEUDOREPLICATION: A WIDESPREAD PROBLEM IN PRIMATE COMMUNICATION RESEARCH**

B. M. Waller<sup>1</sup>, L. Warmelink<sup>1</sup>, K. Liebal<sup>2</sup> and K. E. Slocombe<sup>2</sup>

<sup>1</sup>Department of Psychology, University of Portsmouth, Portsmouth, PO1 2DY, USA,

<sup>2</sup>Languages of Emotion Cluster, Freie Universität Berlin, Germany,

<sup>3</sup>Department of Psychology, University of York, United Kingdom

Pseudoreplication (the pooling fallacy) is a widely acknowledged statistical error. Taking a large number of data points from a small number of animals gives the false impression of a large sample, and thus increases the chance of type I errors and erroneous conclusions. Studies of primate communication may be particularly prone to artificially inflating the data set in this way as the unit of interest (the facial expression, the call, the gesture) is a tempting unit of analysis. Primate communication studies (539) published in scientific journals from 1960 - 2008 were examined for the simplest form of pseudoreplication (taking more than one data point from each individual). Of the studies that used inferential statistics, 41% presented at least one case of pseudoreplicated data. An additional 13% did not provide enough information to confirm presence or absence of pseudoreplication. Binary logistic regression determined that four variables significantly increased the likelihood of pseudoreplication: conducting research in the wild, using observational methods, low impact factor of journal, and the taxon under study. Actual sample size (number of animals) did not predict pseudoreplication, which was surprising as we anticipated that the pooling fallacy would be most difficult to avoid when dealing with small samples. The high prevalence of pseudoreplication shows us that more work needs to be done to avoid this problem in primate communication research.

ABSTRACT # 212

**DARTING PRIMATES: A SURVEY OF PRACTICES AND THEIR IMPACT ON THE PRIMATES INVOLVED**

E. P. Cunningham<sup>1</sup> and J. M. Setchell<sup>2</sup>

<sup>1</sup>New York University College of Dentistry, Department of Basic Sciences,

VA Hospital, 408 First Avenue, New York, New York, 10010, USA,

<sup>2</sup>Anthropology Department, Durham University