

GRADUATE COLLOQUIUM

DEPARTMENT OF ANTHROPOLOGY

Monday, January 4th, 2016

11:30-12:50

Cornett A125

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Breeding Large: Forest Canopy Use and Cooperative Breeding in Variegated Lemurs (*Varecia rubra*) of Masoala, Madagascar

Selective harvesting of large trees in Madagascar's eastern rain forests is considered one of the major factors resulting in local extinction of variegated lemurs because they rely so heavily upon large, mature trees for fruit. However the results of this research suggest that selective timber extraction may in fact more directly destroy their ability to reproduce. Within the Order Primates, variegated lemurs possess a



primordial reproductive pattern in many regards. Few primate species give birth to litters or build arboreal nests in which to care for them. Those that do are small-bodied, nocturnal and solitary. Variegated lemurs are exceptional in that they bear litters in arboreal; nests, yet are large-bodied, day-active and gregarious. Furthermore, they raise their young cooperatively and practice absentee parenting; non-clinging young are transported orally and periodically left alone in protected arboreal spots. Cooperative breeding is a highly derived trait seen in very few groups within the Animal Kingdom, among them humans. In the months following birth, in conjunction with a study of alloparenting, each nesting and infant-stashing tree was mapped and measured in a population of red variegated lemurs in Masoala National Park. About 40 massive trees are used for nesting and stashing per litter in minimally overlapping core areas. A comparison reveals that trees used for reproduction are even more massive than those used for feeding. The variegated lemur's reliance on an abundance of massive trees for reproduction may largely explain their highly patchy distribution in Madagascar's remaining eastern rain forests. Conserving variegated lemurs will depend upon efforts to end harmful timber extraction in its remaining geographic range.

Key themes: Cooperative breeding, primate reproductive patterns, tropical forest canopies, habitat conservation, primate conservation

EVERYONE WELCOME.