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HABITAT SELECTION, SPECIES INTERACTIONS, AND CONSERVATION OF *EULEMUR CORONATUS* AND *EULEMUR SANFORDI* IN NORTHERN MADAGASCAR SACRED FORESTS

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In this study I contrast habitat selection and ecology among crowned lemurs (*Eulemur coronatus*) and Sanford's lemurs (*Eulemur sanfordi*) in small forests, with their behavior in the large, protected Mt. d'Ambre National Park, Madagascar, the site of my previous study of the lemurs (Freed 1996). In June – July of 2004 and 2009, I surveyed small (5-100 ha), forests west and north of the park, including two locally-protected sacred forests, ten disturbed traditionally sacred forests, and ten nonsacred forests. Lemurs inhabited each site, including forest patches beside farms and villages. Lemurs were easily habituated, except in one forest where one person trapped them. Only lemurs inhabiting forests devoid of prized timber and protected by local traditions have escaped the effects of deforestation. As in the park, small forest lemur populations lived in multimale/multifemale groups (<10 adults), used the same forest strata, and had overlapping home ranges. Likewise, in the small forests I found nine polyspecific associations, with both lemur species feeding and foraging together. Lemurs in these sites differ from those of the park in that: 1) for much of the year lemurs consume available *Tamarindus indica*, *Lantana camara*, and *Mangifera indica*; 2) polyspecific associations occurred when primary food sources (e.g., *Tamarindus indica*) were readily available; and 3) local people reported that lemurs migrate annually from larger deciduous forests. As in Lehmann (2000) plant productivity may be a reliable indicator of associations in these lemurs' dry forest populations.

Keywords: sacred grove, lemur, polyspecific association, ecology