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COMPARATIVE FEEDING ECOLOGY OF TWO SYMPATRIC MOUSE LEMURS (*MICROCEBUS* SPP.) IN NORTHWESTERN MADAGASCAR

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The regionally distributed *Microcebus ravelobensis* is found in sympatry with the widely distributed *M. murinus* in northwestern Madagascar. We investigated the significance of their feeding ecology and activity pattern for explaining the coexistence of these two species and their differences in geographic range size. In particular, we analyzed (1) seasonal changes in activity pattern, (2) food partitioning, (3) resource plasticity, and (4) the competitive potential of both species. We obtained feeding and activity data from focal observations, carried out between May 2007 and April 2008 on 11 female *M. murinus* and 9 female *M. ravelobensis*. We defined four observation periods, corresponding to the early or late half of the dry or rainy season, respectively. We conducted encounter experiments in cages with 20 female pairs to investigate their competitive potential. All handling adhered to the legal requirements of Madagascar. Dietary differences existed, for example, during the late dry season, with *M. ravelobensis* feeding more on insect secretions than *M. murinus*. Only *M. murinus* had a decreased locomotor activity during the early dry season. Finally, females of *M. murinus* had a competitive advantage over females of *M. ravelobensis*. We conclude that inter-specific dietary differences and reduced energy expenditure in *M. murinus* may reduce food competition during periods of food shortage, which may facilitate the coexistence of the two species. It is possible that a higher resource plasticity and competitive potential in *M. murinus* may have allowed this species to expand its range at some point in history to its presently large size.

Keywords: food partitioning, competition, activity pattern, biogeography