

Daily Activity Patterns of Free-Living Cururos (*Spalacopus cyanus*)

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Abstract

Circadian patterns of activity have important implications for numerous aspects of a species' biology, including patterns of sociality and paternal care. The activity patterns of subterranean rodents are of particular interest because of the presumed lack of environmental entrainment cues available in underground habitats. We used radiotelemetry to monitor activity of adult cururos (*Spalacopus cyanus*) in 2 populations of this species from north-central Chile. The locations of radiocollared animals from Parque Nacional Fray Jorge ($n = 10$ adults) and Santuario de la Naturaleza Yerba Loca ($n = 8$ adults) were determined hourly for 72 consecutive hours during austral summer, 2003. Examination of these data revealed that surface and subterranean activity were largely restricted to daylight hours. Specifically, the following measures of activity were found to be significantly greater during daytime: percentage of animals outside of nest, distance from nest, and distance between successive locations at which an animal was detected. In addition, the occurrence of cururo vocalizations (typically given by animals at burrow entrances) was significantly associated with daylight. Collectively, these analyses indicate that, contrary to the behavior of captive *S. cyanus*, free-living cururos are diurnal. Physical and social environments in which captive animals are housed may contribute to observed differences in activity between field and laboratory populations of this species.