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RESUMO

Few studies on the ecology of *Dasypus novemcinctus* have been conducted outside of North America. In the Brazilian Amazon, nine-banded-armadillos showed a high degree of diurnal activity in small forest patches but not in large ones (Norris et al. 2010). Here we compare armadillo frequency and circadian activity at four localities in southeastern Brazil: Two study sites were small forest patches, one urban (9 ha, Itatiba, São Paulo) and the other rural (12 ha, Valinhos, SP). We additionally sampled two large forested regions of the Serra do Japi: The Municipal Preserve (3000 ha) and the surrounding area from the Serra do Japi (35.000 ha) at widely spaced observation stations. At each sample station we deployed a passive infrared Bushnell camera trap approximately 50 cm above the ground. Itatiba had four camera stations (n=270 trap-days in 5 months); Valinhos had seven (n=966 trap-days over 7 months); Japi Municipal Preserve had six (n=1850 trap-days, 12 months); and Serra do Japi 59 (n= 2520 trap-days, 23 months). The urban fragment (Itatiba) provided most of the records (50, on different days), Valinhos and Japi preserve had 7 and 11, respectively, and the Serra do Japi 22. The large number of sightings at the small urban patch was possibly due to individual armadillos repeatedly activating two or more cameras. Armadillo home ranges average from 0.6 ha to 20 ha, suggesting that the Itatiba area could support few individuals. At the other localities, most records were well distributed across sample stations (60 to 600 m apart) and days, although at the Serra do Japi one sample station gave 14 of the 22 sightings, these occurring over 22 days. Nine-banded armadillos were crepuscular and nocturnal at all four study localities, with armadillo activity beginning between 6 and 9 pm and terminating between 3 and 5 am. At Itatiba only one activity peak around 2 am was evident. Pumas were photographed at all localities except for Itatiba. Small wild cats *Leopardus* sp. occurred in both small fragments. Our results differed from small Amazon forest fragments in that armadillos did not show diurnal activity beyond an early start in Itatiba. Crepuscular and mainly nocturnal activity was also observed in the large Vale Natural Reserve in the state of Espírito Santo. The Vale study found that nine-banded armadillos had activity periods similar to those in São Paulo, with peaks at 5 pm and at 2 am. Our results for both the large and small forest fragments are similar to those at Vale where nocturnal activity was also the rule. Support: PIBIC (TRB, RTF), CAPES (MAP).

PALAVRAS-CHAVE: *Dasypus novemcinctus*, Serra do Japi, Itatiba, Valinhos, Serra dos Cocais

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