Abstract

Habitat fragmentation leads to isolation and reduce habitat areas, in addition to a series of negative effects on natural populations, affecting richness, abundance and distribution of animal species. In such a context, habitat corridors serve as an alternative for connectivity in fragmented landscapes, minimizing the effects of structural isolation of different habitat areas. This study evaluated the richness, composition and abundance of small mammal communities in forest fragments and in the relevant vegetation corridors that connect these fragments, located in Southern Minas Gerais, Southeastern Brazil. Ten sites were sampled (five forest fragments and five vegetation corridors) using the capture-mark-recapture method, from April 2007-March 2008. A total sampling effort of 6 300 trapnights resulted in 656 captures of 249 individuals. Across the 10 sites sampled, 11 small mammal species were recorded. Multidimensional scaling (MDS) ordinations and ANOSIM based on the composition of small mammal communities within the corridor and fragment revealed a qualitative difference between the two environments. Regarding abundance, there was no significant difference between corridors and fragments. In comparing mean values of abundance per species in each environment, only Cerradomys subflavus showed a significant difference, being more abundant in the corridor environment. Results suggest that the presence of several small mammal species in the corridor environment, in relatively high abundances, could indicate corridors use as habitat, though they might also facilitate and/or allow the movement of individuals using different habitat patches (fragments).

Keywords

Rodents, marsupials, fragmentation, vegetation corridors, Brazilian Atlantic forest.