



Trap-nesting bees (Hymenoptera: Apoidea) in forest fragments of the State of São Paulo, Brazil

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ABSTRACT. We studied the community ecology of trap-nesting bees in two forest fragments of the State of São Paulo, Brazil, during two years, utilizing bamboo canes and tubes made of black cardboard as trap nests. The traps were inspected once a month with an otoscope. One hundred and fifteen nests were obtained at Estação Ecológica de Paulo de Faria, Paulo de Faria (EPPF). These included nine species belonging to five genera and two families. At Santa Cecília Farm (SCF), 12 species belonging to seven genera and three families built 392 nests. Natural enemies reared from nests of both areas included Hymenoptera, Diptera and Coleoptera. Species richness was similar between the areas but the communities differed considerably in species composition. The higher diversity found at EPPF was due to more even distribution of the species. No difference was observed between the numbers of nests built in each year in each area. Although the species richness was lower in the cool/dry season of both years at SCF, and in the first year at EPPF, the nesting frequencies did not differ between seasons for both the overall community but for each of the most abundant species. No annual fluctuation in the frequencies of nesting was observed. As

temperature and precipitation were not found to be significantly different between the two years of study in each area, we concluded that climatic stability resulted in population stability.

Key words: Apoidea; Solitary bees; Community; Species diversity; Trap-nests; Parasitism