Abstract
Scarabaeinae specimens were collected with the use of pitfall traps baited with human excrement, rotten meat and rotting banana, between May 2009 and April 2010, in three forest fragments in Santa Maria, Rio Grande do Sul, Brazil: ‘Morro do Elefante’ (MOEL), ‘Morro do Cerrito’ (MOCE) and ‘Campus da Universidade Federal de Santa Maria’ (UFSM). A total of 19,699 individuals belonging to 33 species were collected. Canthidium aff. trinodosum Boheman, 1858, Canthon latipes Blanchard, 1845, Dichotomius assifer (Eschscholtz 1822), assifer (Eschscholtz 1822), assifer Eurysternus caribaeus (Herbst 1789), Canthidium sp. and Canthon lividus Blanchard, 1845, were the most abundant species. MOEL showed the greatest richness, MOCE the greatest abundance, while UFSM showed the lowest values of richness and abundance. The greatest similarity (qualitative and quantitative) was found between MOEL and MOCE, while the lowest occurred between MOCE and UFSM. Only 51% of the species were common to all three fragments. The richness and abundance of Scarabaeinae were positively correlated with the air temperature. The richness of the fragment decreased according to the smaller size and the greater degree of disturbance of vegetation structure.

Keywords
Atlantic forest, dung beetles, Southern Brazil, species richness, temporal distribution.