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SUBTERRANEAN ANTS (HYMENOPTERA, FORMICIDAE) AS PREY OF FOSSORIAL REPTILES (REPTILIA, SQUAMATA: AMPHISBAENIDAE) IN CENTRAL BRAZIL

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ABSTRACT

The ant diversity observed in stomach contents of fossorial reptiles was compared to the subterranean ant richness collected using traditional and modern techniques of ant collections. We analyzed the alimentary tract of 64 specimens of amphisbaenians (4 Amphisbaena alba, 10 A. fuliginosa, 25 A. vermicularis, and 25 Leposternon infraorbitale) collected during the fauna rescue for the construction of Serra da Mesa hydroelectric dam in the Tocantins River (from 1992 to 1997), in Minaçu County, Goiás, Brazil. We found only five ant species present in the stomach contents, all belonging to the army ants subfamily Ecitoninae. In contrast, the traditional techniques for subterranean ants' collection are far more efficient than the exam of fossorial reptile's stomach contents, collecting a much richer and diverse ant fauna. The exclusive occurrence of army ants in the alimentary tract of these fossorial reptiles suggests that they trace the chemical trails laid by the ants while moving inside and over the soil. Further, the occurrence of the epigaic army ants Eciton and Labidus in the stomach contents suggests that amphisbaenians may forage on the soil surface as well.

KEYWORDS: Amphisbaenians; Ecitoninae; Subterranean ants; Stomach contents.

INTRODUCTION

Formicidae is one of the most important insect taxa in regard to biomass, abundance and ecological impact in tropical and subtropical terrestrial habitats (Hölldobler & Wilson, 1990; Floren *et al.*, 2002; Wilson & Hölldobler, 2005a, b). A recent

study (Brandão; Silva & Delabie, in press) on the community structure of local tropical ant faunas have revealed that these faunas are not random assemblages of species, but are rather structured in 16 well defined guilds, of which nine live mostly in the leaf litter, three are arboricolous, two are subterraneous (one nomadic hypogaic), one is nomadic epigaic and one repre-

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