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Occurrence and Food Habits of Some Bat Species from the Linhares Forest Reserve, Espírito Santo, Brazil

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Introduction

Food habits of bats from Espírito Santo State, eastern Brazil, have been little studied. Exceptions are the work of Zortéa ('93), Zortéa and Mendes ('93), and Zortéa and Chiarello ('94) on folivory and frugivory in some phyllostomid species. In this note, we provide information about the occurrence and food habits of certain bat species in a remnant fragment of Atlantic forest in the Espírito Santo State.

Methods

On eight nights, between 27 July and 17 August (dry season), we captured eight species of bats in mist nets set in the rain forest, at the Companhia Vale do Rio Doce Forest Reserve, in Linhares, Espírito Santo State, Brazil (19°06'--19°18'S; 39°45'--40°19'W). To obtain feces for analysis of food habits, we placed the captured bats in cloth bags for approximately one hour. Feces were then transferred to paper envelopes, and seeds found in the feces were later compared to those of fruits from local plants.

Results and Discussion

We captured 38 *Carollia perspicillata*, 4 *Platyrrhinus recifinus*, 3 *Artibeus* sp., 3 *Rhinophylla pumilio*, 2 *Desmodus rotundus*, 2 *Phyllostomus discolor*, 2 *P. hastatus*, and 1 *Lonchophylla mordax*. In addition, 88 *Glossophaga soricina*, 12 *Molossus ater*, 4 *Trachops cirrhosus*, and 1 *Myotis nigricans*, were observed inside local houses. Our report confirms the occurrence of *L. mordax* in the Espírito Santo State, as previously reported by Ruschi (1953). There are few other records of this species, but it is also known from the states of Bahia and Pernambuco, in northeast Brazil (Taddei et al., 1983; Willig, 1983).

We found the following data concerning the food habits of these species that were not known until now: Utilization of *Momordica* sp. fruits (Cucurbitaceae, n=1) by *P. hastatus*, *Cecropia* sp. fruits (Cecropiaceae, n=2) by *P. recifinus*, and use of pollen by *Rhinophylla pumilio* (undetermined taxa, n=3; n=frequency of occurrence of the food item in the sample of bats that was captured, in a presence-absence scheme). This last species was considered a fruit-eater by Gardner (1977) and Reis and Peracchi (1987); the latter authors determined that seven kinds of fruits were eaten by *R. pumilio*, at the Manaus area in the state of Amazonas, in northern Brazil. Information obtained for *C. perspicillata* indicated that fruits of the genus *Solanum* (Solanaceae) were the most common item in the diet; fruits of *S. inaequale*, were eaten by 43% (n=13) of the *C. perspicillata*, and 27% (n=8) consumed unidentified *Solanum*. Seeds of *Piper arboreum* (Piperaceae) (n=7; 23%) and insects (n=2; 7%) were less commonly found during the period of study. Marinho-Filho (1991) compared the diets of *C. perspicillata* and *Sturnira lilium*, species that are very similar in size and general food habits; this author found that the first species feeds mainly on *Piper* (64%), whereas the latter fed mainly on *Solanum* (76%) at Serra do Japí, in the state of São Paulo, in southeastern Brazil. He concluded that differential utilization of fruits by *C. perspicillata* and *Sturnira lilium* represented resource partitioning, allowing the coexistence of the two bat

species in periods of low fruit availability. In the Linhares Forest Reserve, *Sturnira lilium* is not abundant (Peracchi and Albuquerque, 1993), and its rarity may permit *C. perspicillata* to become a greater consumer of *Solanum* fruits.

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