



BOTANIC PREFERENCE OF *APIS MELLIFERA* LINNAEUS, 1758 (*HYMENOPTERA*, APIDAE) IN REMNANTS OF AN ATLANTIC FOREST BIOME AT THE SERGIPE STATE

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INTRODUÇÃO

The flora is important for development and installation of an apiary, influencing the hives numbers to be installed and productive capacitive of the clusters. (Howes, 1953; Sodrè *et al.*, 008). The flora of a site can consist of different species with degrees of importance varying and their study is important because it provides information that enables the bee's development. One way to identification the plant species visited by bees is by Melissopalynology, being that pollen spectrum obtained by palinological analysis generally is relative to the distribution of honey and pollineferous plants at the local where the apiary is installed. (Durkee, 1971; Melo, 1989). Honey is a complex product and its composition depend of the environmental conditions, the plants visited and the producer management, being that Melissopalynology contributes to characterize it as their source (Barth, 1989).

OBJETIVOS

This work was carried out to identify the main botanical families presents in honeys from apiaries located in

remnants of Atlantic forests in Sergipe state.

MATERIAL E MÉTODOS

Were studied samples of honey and plants located around from the apiaries "Tigre" and "Treze de Maio", located respectively at the Sergipe municipalities of Pacatuba and Japaratuba. The honey samples were obtained from the honey harvest of 2009 from the respective apiaries. Were collected at the same period the flowering plants within a radius of one kilometer around the apiaries. These samples were submitted to acetolysis technique (Erdtman, 1952). The material was mounted in glycerin gelatin and prepared slides to compare the pollen content of honey samples, with the pollen grains obtained from the plants collected around the apiaries. After quantitative evaluation was performed according to Louveaux *et al.*, . (1978), with the count of 300 pollen grains per replicate from each sample and classifying them according to the representatives in dominant pollen (above 45%), accessory pollen (16 to 44%) and isolated pollen (15%).

RESULTADOS

At the region near to the coast, represented by Pacatuba city, were collected six species belonging to four botanical families, however in the honey sample were found 12 botanical families, showing the plants diversification visited by the bees and possible expansion on its range of flight, in food searching, which can be up to five kilometers. The botanical families collected around the apiary were Aracaceae, Anacardiaceae, Apocynaceae and Euphorbiaceae. With the species *Cocos nucifera*, *Syagrus coronata*, *Schinus terebinthifolius*, *Anacardium occidentale*, *Hancornia speciosa* e *Jatropha* sp, belonging to the families respectively, these plants are characteristics of the littoral zone, however, the tree and shrub extracts, has been not found representative herbaceous at flowering at the period of collection. In the case of the honey sample, this city did not showed dominance in one pollen type, but the junction of three accessories types of pollen grains belonging to the families Arecaceae (21%), Fabaceae (35%) and Mimosaceae (13%). Having also, featuring families Verbenaceae, Anacardiaceae, Araceae, Rubiaceae and Sapindaceae as isolated pollen. Pollen grains of the families Poaceae and Cecropiaceae, were found, however, as these households are not nectar producers they were discarded, because the samples may have come through of the wind action or while pollen collection for the protein feeding by the bees. The most inner region of the state in Japarutuba, show similar results to Pacatuba, However, the herbal extract had the greatest number of specimens in bloom, this may have been caused due to soil type and/or level of human disturbance level on these. Families were identified Asteraceae, Chrysobalanaceae, Cyperaceae, Euphorbiaceae, Flacourtiaceae, Malphigiaceae, Melastomataceae, Polygaleae, Rubiaceae and Verbenaceae.

In honey, occurred dominance of pollen type of a botanical family, Mimosaceae (55%), accessory pollen Myrtaceae (21%) and the families Anacardiaceae, Melastomataceae, Fabaceae and Rubiaceae showed isolated pollen. At the samples analyzed the family Mimosaceae was the most representative, being the only considered dominant, this family had four different pollens types, however, in honey had four different plants species, *Mi-*

mosa caesalpiniiifolia (41%), one do not identified species (6%), *Mimosa scrabella* (5%) and *M. pudica* (3%). Although the pollen grains from this family to be dominant, the honey is considered wild, but, not species within the family showed isolated dominance, however, the presence greater than 45% of pollen grains found. The results show that not all plants around the apiary are visited by the bees. The diversity of botanical families found in the honey is similar to the results in picks (PI). Where the family Mimosaceae also appeared as dominant in honey samples (Sodré *et al.*, ., 2008).

CONCLUSÃO

There was a great similarity between the two selected apiaries, with the same families and some botanical species; this can be caused by the current facility of dispersal plants within the same bioma, despite the possible edaphoclimatic difference that can be found. This diversity suggest also and adaptive foraging behavior in the vegetal resources available at the environment, which can help the pollination of these botanical families.

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