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SURVEY OF WASPS AND BEES IN INDUSTRIAL AREAS FROM THE PETROCHEMICAL OF CAMAÇARI, BRAZIL

[1,2]ANDRÉ CARNEIRO MELO, [1]OSMAR MALASPINA, AND [2]ANTONIO DALTRO MOURA

[1]Unesp, Centro de Estudos de Insetos Sociais, Rio Claro, SP. Brazil
[2]Insét & Cida Natural- Saúde Ambiental Ltda., Salvador, BA, Brazil

Both wasps and bees are essential components for the diversity of tropical terrestrial systems. These insects, however, show an intense urbanization behavior, building their nests in the eaves of houses, wells, rooftops and other sites. Thus, the number of accidents caused by these insects has increased considerably. The occurrence of such accidents in companies are classified as occupational injuries and cause medical clearance of employees and labor problems which require the development of monitoring techniques and forms of management of these insects. Thus, the aim of this work was to survey the species of bees and wasps occurring in industrial areas and assess the preferred sites for the installation of their colonies. We also correlated such nest sites with the environmental factors. For data collection visits were made monthly in industries of the Northeastern Complex. The areas of buildings and industrial processes were investigated, in addition to the adjacent vegetation, to identify the active colonies of bees and wasps. Type of substrate used for nest construction and nest height above the ground were also analyzed. Eighty nine active colonies were found. Eighty three colonies (93.25%) belonged to the group of social wasps. *Polybia sericea* was the most abundant species with 78% of cases, followed by *Polybia* sp. with 14.4% of cases. It is known that it is very common to find *Polybia* nesting in urban buildings and disturbed areas. The chi-square analysis revealed a non significant variation in the abundance of the monthly number of colonies of social wasps. This result suggests that the colonial cycle of wasps in this region is asynchronous, and coliny foundation and dropouts occurr in all months of the year. The multiple linear regression analysis between the abundance of social wasps in each sample with values of climate variables (temperature, relative humidity and rainfall) showed no significant influence on any of the variables. The species *Polybia sericea* showed greater ecological valence nesting in a wide variety of substrat. Their nests were found attached to many different types of substrates. Regarding the bees only six colonies (6.75%) were found and the species that predominated was *Apis mellifera.* Their most frequent nesting sites were within pre-existing cavities such as poles, wiring boxes and clay pots used in ornamental gardens. The low abundance of this species is an indication that *A. mellifera* responds to the negative impacts of fragmentation of natural environments. Anyway ecological factors such as great ecological flexibility and more competitive power may interfere in its prevalence. Taking into account the biological and behavioral aspects of the populations of bees and wasps, it is important to develop a program for monitoring and managing these insects as a permanent program to effectively minimize such problems in industrial areas.

Key Words Social stinging insects, management, survey