TITLE: ENTEROBACTERIA CARRIED BY ANTS (HYMENOPTERA: FORMICIDAE) IN SNACK BARS IN THE ABC REGION OF SÃO PAULO

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Restaurants, canteens and snack bars attract ants in search of water, shelter and especially, food. These insects can act as mechanical vectors, disseminating microorganisms, since these insects are often found in unhealthy places. This poses a potential threat to public health as food can be contaminated with ant-borne pathogens in the feeding areas. The objective of this study was to identify ant - borne enterobacteria found in 4 snack bars in Sao Paulo ABC region and to identify the ants collected at the genus level. For this, an entomological aspirator type trap was developed that, after sterilization, was used to collect the ants found in the snack bars. The collected insects were placed on the surface of plates containing nutrient agar, incubated at 37 ° C for 48 h. Colonies developed on nutrient agar were submitted to Gram staining. The Gram negative colonys were seeded on MacConkey agar and afterwards in the Enterokit B® biochemical series for identification purposes. A total of 42 samples were collected, and it was identifyed ants belonging to five genera, *Tapinoma* sp, *Paratrechina* sp, *Pachycondyla* sp, *Pheidole* sp and *Solenopsis* sp. Bacterial and fungal colonies were obtained in 97% of the samples. Enterobacterias *Klebsiella pneumoniae*, *Serratia liquefaciens*, *Proteus pennerie* and *Escherichia coli* were identified. The presence of microorganisms that can be considered as primary pathogens such as *E. coli* and *Klebsiella* sp and also opportunistic pathogens such as *E. coli*, *Klebsiella* sp, *Serratia* and *Proteus* indicate the need for better control of ant populations in these environments and the implementation of food safety procedures as well as the awareness of the users of these spaces. The results were sent to those responsible for each of the snack bars so that they could take the necessary actions to avoid contamination of the food served to the local community.

Keywords: Enterobacteria, Formicidae, food contamination, public health.

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