

## **Insects of the order Diptera as Mechanical Vectors of enteroparasitoses of medical interest.**

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Among the diseases that affect the less favored populations and that are directly related to the form of environmental occupation, the enteric parasites are highlighted as a result of poverty, lack of hygiene habits or the absence of sanitary sewage. In spite of the little merit given to vector or mechanical transmission, in the developing countries vectors of the order *Diptera* (flies) represent an important route of infection of enteroparasitoses of medical interest. The relevance of this mechanism of transmission is due to the constant occurrence of the association between insects and humans, especially in metropolitan areas, since the production of urban waste, industrial waste, excrement of domestic animals and humans plays a fundamental role as a substrate for development of certain species of insects. Insects of the order *Diptera* are considered potential mechanical vectors of pathogens because they are in close proximity to man and his environment. The objective was to investigate the importance of this insect (*Diptera*) as a mechanical vector of enteroparasitoses of medical interest. Twelve collections per year were carried out at regular intervals of one month, totaling 24 collections of insects (*Diptera*), of which 20 were residences (ten located in urban areas and 10 in rural areas), 4 hospitals (two public and two private), 10 garbage stacks located near residences, 10 supermarkets and 4 free-trade fairs of the municipalities of Ilhéus and Itabuna, Bahia. After the samples were sent to the UESC Parasitology Laboratory, the vectors were processed and analyzed. The parasites were *Entamoeba histolytica*, *Entamoeba coli*, *Endolimax nana*, *Giardia lamblia* and *Iodamoeba butschlii*, being pathogenic *Entamoeba histolytica*, *Giardia lamblia*. Each insect of the order *Diptera* was examined individually for the sites searched. In free markets, the most prevalent medical parasite was *Entamoeba histolytica* (25%), followed by commensal parasites *Entamoeba coli* (25%), *Endolimax nana* (25%) and *Iodamoeba butschlii* (25%). Even without observing parasites of medical interest, we can observe a variety of parasite parasites present in house flies, demonstrating the possibility of the spread of other parasites that may lead to the health compromise of the exposed population. When analyzing the samples of flies collected in the piles of garbage the highest prevalence of *Entamoeba coli* (20%) was found in the city of Ilhéus, while the prevalence of *Endolimax nana* 10% of *Entamoeba histolytica* and 10% of *Giardia Lamblia*, the last two being of medical interest. The hospital environment showed less presence of contaminated insects, showing presence of only one protozoan *Endolimax nana* (10%). When analyzing the samples collected in supermarkets, a prevalence of commensal parasites was observed, being *Entamoeba coli* (20%) and *Endolimax nana* (30%). From this contribution, it will be possible to obtain information about the vector transmission of enteroparasitoses, allowing the visibility of their real importance in the context of public health, as well as the planning and establishment of control measures and epidemiological surveillance to minimize these pathways of transmission pathogenic agents.