

TITLE: ISOLATION OF GRAM-NEGATIVE BACTERIAS IN FACES OF DOMESTIC PIGEONS (*Columba livia*) IN PUBLIC AREAS OF SÃO LUÍS, MA.

AUTHORS: Raquel Caires Coelho; Waléria Tayres da Silva Santos; Erika Alves da Fonseca Amorim; Camilla Stephane Dias Souza; Fernanda Nayr Sena Chaves; Rita de Cássia Mendonça Miranda

INSTITUTION: UNIVERSIDADE CEUMA, SÃO LUIS, MA (Rua Josué Montello, nº 1, Renascença II, CEP 65075-120, SÃO LUIS, MA, BRAZIL)

ABSTRACT:

The pigeon population (*Columbia livia*) is distributed worldwide and constitutes environmental and public health disorders. One of the concerns is its potential in disseminating pathogens such as *Escherichia coli*, *Salmonella* sp and *Shigella* sp commonly found in the intestinal microbiota of warm-blooded animals that causes zoonotic risk and transmission of serious enteric diseases. Therefore, the objective of this research was to demonstrate the presence of these enterobacteria in excreta of pigeons in specific places of São Luís. Stool samples were collected at different locations, identified, macerated and after 1g of faeces were dispensed into conical tubes, adding 50 ml of solution saline, homogenized for 3 minutes and rested for 30 minutes. Soon after, the supernatant of the samples was seeded in plates of EMB Agar and SS Agar and maintained in bacteriological oven for up to 48h. A macromorphological examination was performed to observe the macroscopic characteristics of the colonies and identification by MALDI-TOF. The places chosen for collection have several points of sale of foodstuffs with expressive flow of people. The isolated yeasts were identified by the VITEK automated system and the antifungal sensitivity test was performed by means of the plaque microdilution assay. Filamentous fungi were identified by the microculture. Epidemiological and immunological data were obtained through the analysis of medical records. *Escherichia coli* was found in 100% of the samples. The susceptibility test against 16 antimicrobials was carried out using VITEK2 and was sensitive to all. The environmental isolation of this pathogen in areas such as these is important for public health, taking into account the growing pigeon population and the potential risk of pathogenic strains causing serious infections.

Key words: *Escherichia coli*. *Salmonella* sp. *Shigella* sp. Public health. Domestic pigeon.