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LIVRO DE RESUMOS
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LIBRO DE RESÚMENES



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Title: ISOLATION AND ANTIMICROBIAL RESISTANCE OF MICROORGANISMS IN THE WILD AMAZON REGION

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Abstract:

Some enterobacteria are always associated with disease, while others are members of the normal microbiota and may cause opportunistic infections in wild animals. The aim of this study was to evaluate the frequency and antimicrobial resistance of enterobacterial various animal species in captivity in the state of Para 116 turtles, 84 birds, 20 nonhuman primates, 15 iguanas, 14 peccaries and eight manatees were analyzed. Samples were collected by the introduction of the cloaca swabs and anus according to the animal and sent to the laboratory of Biomolecular Technology, Federal University of Pará for conducting microbiological isolation and culture species. The samples were inoculated in BHI (Brain Heart Infusion) and isolated on MacConkey, blood agar and XLT agar after incubation at 37 °C for 24 hours. The main bacteria isolated according to the species of animals were *Klebsiella pneumoniae* (83.7%), *Enterobacter cloacae* (59.7%), *Serratia marcescens* (44.6%), *Salmonella* spp. (38.5 %), *Escherichia coli* (33%), *Proteus mirabilis* (24.6%) and *Citrobacter freundii* (13.7%) isolated from turtles, *Enterobacter* sp. (39%), *Shigella* sp. (19.4%), *Proteus* sp. (13.8%), *K. pneumoniae* and *Micrococcus* sp. (11%), *E.coli* and *Staphylococcus* sp. (2.7%) were obtained from birds. *E. coli* was present in 41%, followed by *K. pneumoniae* 28% in samples from non-human primates. *Salmonella* sp. (34.6%), *E. coli* (19.2%), *Proteus* sp. (15.3%) and *Klebsiella* sp. (3.8%) were the most common in iguanas and *E.coli* (68.7%), *Staphylococcus* sp. (19%) and *Streptococcus* sp. (12.5%), were isolated from

peccaries. Of samples from manatees were isolated *E. coli* (80%), *K. pneumoniae* (65.6%), *Bacillus* spp. (43%), coagulase-negative *Staphylococcus* (20%), *Proteus* sp. (15.7%), and *Streptococcus* spp. (3.7%). The level of antimicrobial resistance among bacteria was observed high resistance to two or more classes of antimicrobials such as amikacin, clindamycin, nalidixic acid, lincomycin, neomycin, tetracycline, and vancomycin. It follows a monitoring of captive related species should be performed infection by these bacteria isolated to prevent the spread of pathogens in the environment.

19:21&22&23:2

Title: HAEMATOLOGICAL VALUES AND PLASMA PROTEIN CONCENTRATIONS OF A SEMI INTENSIVELY REARED COLONY OF THE RED RUMP AGOUTI [*Dasyprocta leporina*]

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Abstract:

In Trinidad, where the farming of the specific species of the agouti, *Dasyprocta leporina* occurs, the development of standard reference blood values is important for the implementation of the proper health management of the species. Also a search of the literature reveals no such published data on this species. There is however, a paucity of information on the red and white blood cell values of the grouped agouti species (*Dasyprocta* sp.). This preliminary study represents an investigation into blood values and plasma protein concentrations of a colony (n=14) of agouti reared semi-intensively at the Eastern Caribbean Institute of Agriculture and Forestry, Trinidad. Blood was drawn by venipuncture from the right lateral saphenous vein and collected in potassium EDTA tubes for complete blood counts (CBC). Haemoglobin concentration, packed cell volume (haematocrit), white blood cell count and differential leukocyte counts were carried out according to the established procedures (Schlam's Haematology, 2010). Mean \pm SD values of haemoglobin (g/L); haematocrit (L/L); and mean corpuscular haemoglobin concentration (g/L) were 15.2 ± 2.04 ; 0.49 ± 0.06 ; 307 ± 19.7 respectively. Mean \pm SD values ($\times 10^9/L$) of total white blood cell count and of neutrophils; lymphocytes; eosinophils; monocytes and basophils were 5.0 ± 1.11 ; 1.86 ± 0.55 ; 2.67 ± 0.87 ; 0.25 ± 0.31 ; 0.15 ± 0.16 ; and 0.02 ± 0.04 , respectively. Blood smears of 86% (12 of 14) of the animals in the colony contained a few irregular-shaped red blood cells. Also no blood parasites were detected. Red blood cell values were high when compared with that of the group *Dasyprocta* sp.. The white blood cell and neutrophil values were low when compared with those of *Dasyprocta* sp. The red cell abnormality observed may be indicative of Type C haemoglobin which may be characteristic of this particular species and representing a haemoglobin gene variant that is also found in certain breeds of cattle, camels, buffaloes and goats.