

## **DISEASES ASSOCIATED WITH NINE-BANDED ARMADILLO (*DASYPUS NOVEMCINCTUS*) DASYPODIDAE CONSUMPTION: A LITERATURE REVIEW**

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### **RESUMO**

In Brazil, nine-banded armadillos (*Dasypus novemcinctus*) Dasypodidae are actively hunted and used as a protein source by people who carry out subsistence and sport hunting. The nine-banded armadillo is considered a natural reservoir and host of diseases, due to its semifossorial habits, which are always in direct contact with the soil, and consequently with microorganisms present in the environment, including those that are pathogenic to man. Excessive consumption of nine-banded armadillo can cause a drastic reduction in those species populations, in addition to exposing humans to pathogens. In this scenario of hunting and heavy consumption of nine-banded armadillos, the objective of study was to evaluate which diseases and places with the highest records of diseases related to the consumption of nine-banded armadillo in Brazil. From December 2018 to October 2019, we consulted publications in books, scientific articles, theses and dissertations in the databases: Google Scholar, SciELO, CAPES, ERIC and BDTD and websites, as such as the Ministry of Health and ICMBio. Among the 123 publications evaluated, from 1976 to 2014, eight diseases caused by bacteria, protozoa and fungi were found, related to hunting activity, consumption and direct contact with the specie. They are: Leptospirosis, Leprosy, Toxoplasmosis, Chagas disease, Leishmaniasis, Coccidioidomycosis, Paracoccidioidomycosis and Histoplasmosis. We found records of 132 infected animals, with the most frequent diseases being Toxoplasmosis (n = 38 animals) and Chagas disease (n = 37 animals). We found records of infected animals in nine states in Brazil: Ceará (n = 35), São Paulo (n = 29), Minas Gerais (n = 26), Pará (n = 22), Espírito Santo (n = 11), Roraima (n = 5), Piauí (n = 3), Amazonas (n = 1) and Goiás (registered but not quantified). The state with the greatest diversity of diseases related to nine-banded armadillos was Pará with a record of six of the eight diseases evaluated. There were records of nine-banded armadillos with Leprosy (*M. leprae*), in the states of Ceará (n = 5 animals) and Espírito Santo (n = 11 animals). Among all the diseases cited, Leprosy stands out, an ancient disease in which the nine-banded armadillos are highly susceptible to infection, an aspect that allows human-animal transmission through direct contact with body fluids and aspiration of bacilli. The finding of the bacillus in the body of the nine-banded armadillos has serious implications for programs for the control and eradication of the disease in humans, since the manipulation or consumption of food contaminated with *M. leprae* would configure a possible route of transmission of Leprosy to humans. In Brazil, despite the

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fact that hunting and the consumption of wild animals are prohibited by law, the use of nine-banded armadillos as a protein and medicinal source is still very common in social groups with low education and low purchasing power, which make them directly a group at risk of contracting diseases. For this reason, we suggest replacing the consumption of game meat with the consumption of meat from domestic animals that have passed the control of health monitoring and are favorable to human consumption.

**PALAVRAS-CHAVE:** Brazil, Diseases, Hunting, Mammals