
PRELIMINARY REVIEW OF AN EPIDEMIOLOGIC SURVEY OF BLACK RHINOCEROSSES IN CAPTIVITY IN THE UNITED STATES

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Abstract

In 2000, a doctoral training program in veterinary epidemiology was established focusing on the health of rhinoceroses in captivity. This program was created through a partnership between the International Rhino Foundation, the American Zoo and Aquarium Association's (AZA) Rhinoceros Advisory Group, and the College of Veterinary Medicine at The Ohio State University. As part of this program, a general survey was designed to gather information on the medical and husbandry status of black rhinoceroses in captivity in the United States.

Review of the medical records of the 242 animals included in the survey found the repeated occurrence of several clinical signs as well as some necropsy findings. These findings included epistaxis (20%), dental calculus (10%), necrosis or sloughing of the tail (5%), loose horn (5%), and unexplained swelling of the legs or shoulders (8%). necropsy findings from 147 necropsy reports included mineralization of major blood vessels, organs or soft tissue (16%), thyroid cysts (12%), hemosiderosis of liver, spleen, bone marrow and intestines (30%), and hepatopathy (18%).

Evaluation of data obtained from the survey and the international studbook for the African black rhinoceros revealed a significant difference between the age of wild-born black rhinoceroses and captive-born black rhinoceroses that have died in captivity in the United States. Controlling for time spent in captivity and neonate mortality still showed that wild-born black rhinoceroses lived significantly longer in captivity than did the captive-born rhinoceroses. This suggests that some characteristic associated with captivity may be a risk factor influencing morbidity and mortality in the black rhinoceros.