Epidemiology of Black Rhinoceroses in the United States

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This study surveyed 40 of the 43 (93%) AZA facilities holding black rhinoceroses and included 296 of the 334 black rhinoceroses (88.9%) ever in captivity in the United States between the years 1930 and 2001. The major descriptive observations of this study are: 1) cases of primary hemolytic anemia peaked in the years 1976 - 1980 and do not currently represent a major health problem; 2) idiopathic hemorrhagic vasculopathy occurred prior to 1995 and in animals living in regions other than Texas; 3) hepatic cholestasis in captive black rhinos may be associated with causes other than creosote toxicity; and 4) ectopic mineralization is increasing in occurrence over time in the captive population. Analysis of the survey data identified several risk factors associated with decreased survival time, including skin lesions, hypercalcemia, dental calculus, neurologic signs, jaundice, muscle necrosis, and signs of idiopathic hemorrhagic vasculopathy. An additional study examined the risk factors associated with a skewed natal sex ratio. Captive female black rhinoceroses that had given birth to at least one calf of known sex were included in the study. This study confirmed a skewing of the natal sex ratio favoring male calves in calves born to wild-born dams, and that for these dams, increased time in captivity was associated with an increased likelihood of a male calf. No associations were found to be associated with the birth of male calves to captive-born dams. This lack of association, however, may be a result of low power in the study.