
A REVIEW OF PARTURITION PARAMETERS OF THREE SPECIES OF CAPTIVE RHINOCEROS: WHITE RHINOCEROS (*Ceratotherium simum*), BLACK RHINOCEROS (*Diceros bicornis*) AND GREATER ONE-HORNED RHINOCEROS (*Rhinoceros unicornis*)

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Abstract

Rhinoceros species range from near threatened to critically endangered due to habitat loss and poaching.⁶ A sustainable ex situ breeding population is critically important to maintain genetic diversity and help ensure survival of the species; however, captive populations are not self-sustaining.^{12,13} While rhinoceros reproductive physiology and breeding management have been well studied, there is still a paucity of information describing normal parameters of parturition.^{8,10,11} A recent study characterized pre- and postpartum behaviors and normal timelines for 19 birth in captive southern white rhinoceros in European zoological facilities.⁴ We reviewed data regarding parturition of three rhinoceros species (southern white rhinoceros (SWR), black rhinoceros (BR), and greater one horned rhinoceros (GOHR)) from videos, medical records, and literature of documented birthing events.^{1,5,9} Using equine parturition parameters as a model for comparison, we compiled the following data on three species of rhinoceros: signs of impending parturition, duration of the three phases of parturition, calving presentation, and timeline of neonatal landmarks.^{2,3,7} Preliminary data from eighteen animals (12 SWR, 1BR, 5 GOHR) and 24 births comparing calf presentation and viability documented four still births (three posterior and one unknown presentation) and twenty live births (nine anterior, four posterior, and seven unknown presentations). Accurate and detailed monitoring of parturition can be a large undertaking for zoological institutions; however, the authors feel that this is an important investment as it is a necessary tool to help determine normal parturition parameters. This will help to provide prospective standardization of parturition to aid facilities with rhinoceros breeding programs.

Key words: Calf presentation, parturition phases, pregnancy, rhinoceros, signs of impending parturition, stillborn calf

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