

The soundscape experienced by the Southern White rhinoceros (*Ceratotherium simum simum*) at a wildlife park conservation center

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Journal of the Acoustical Society of America 134 (5), page 4147 (2013);

<http://dx.doi.org.libproxy1.nus.edu.sg/10.1121/1.4831200>

Abstract only published:

Many creatures, including the myopic rhinoceros, depend on hearing and smell even more than on their sight. Noise impacts human health and reproduction, and may impact these other mammals similarly, or even more. Rhinos have been recorded vocalizing infrasonically and sonically. They have a poor breeding record in urban zoos, in which infrasonic noise tends to be chronic. Herd size and composition, the age of potential mates, substrate, enclosure design, and other factors have been studied but little attention if any has been paid to soundscape. As a first step to comparing the soundscapes of facilities in which rhinos have and have not bred successfully, this project recorded and analyzed the soundscape of white rhinos at Fossil Rim Wildlife Center in Texas, one of five Conservation Centers for Species Survival, and one of the few U.S. facilities to successfully breed this species in recent years. Animal responses to sound have been shown to depend on sound level, rate of onset, duration, number of events, spectral distribution of the sound energy, presence of pure tones, the relative level of background noise, and semantics. Similar parameters were analyzed for the data recorded at Fossil Rim and will be presented here.