

Young Southern white rhinos may produce four distinct, context-dependent calls

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Young Southern white rhinoceros. Credit: Sabrina Linn

Young Southern white rhinos may produce four distinct calls in differing behavioral contexts, according to a study published March 7, 2018 in the open-access journal *PLOS ONE* by Sabrina Linn and Marina Scheumann

from the University of Veterinary Medicine Hannover and Serengeti-Park Hodenhagen, Germany, and colleagues.

Describing species' vocal repertoires can provide insights into how they communicate. Little is known about how young Southern white rhinos vocalize, and how their calls compare to those of adult rhinos. The authors of the present study characterized vocalizations in a small sample of rhino calves, aged between one month and four years old, at three zoos in Germany. They used audio and video to record the calls of seven calves reared by their mothers as well as one hand-reared calf.

The researchers found that the calves produced four distinct call types: "Whine", "Snort", "Threat", and "Pant". The call rate of Whines, which appeared to indicate an intention to suckle, decreased with age. Snort, Threat and Pant calls were used in differing social interactions with the mother, other rhinos and zookeepers, and have previously been described in adult rhinos. The hand-reared calf produced all four call types in similar behavioral contexts to the mother-reared calves, which might indicate that the calls have a strong innate component rather than being learnt from mother rhinos.

These observations were drawn from a sample of just eight young rhinos in captivity, and might not generalize to [calves](#) in the wild. Nonetheless, the authors state that their findings provide the first evidence that young white rhinos may produce specific context-dependent call types. They note that the semi-social lifestyle of white [rhinos](#), where juveniles remain close to their mothers for several years, might lead to increased vocal communication compared to other solitary rhino species.

"Our study provides first systematic data on vocal communication of infant and juvenile white rhinoceros and first evidence that there is a strong innate component to the development of vocal usage and production in white rhinoceros," says Sabrina Linn.

More information: Linn SN, Boer M, Scheumann M (2018) First insights into the vocal repertoire of infant and juvenile Southern white rhinoceros. *PLoS ONE* 13(3): e0192166.

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