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Abstract W425

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W425

Evaluating genome wide measures of variation in northern white rhinoceros

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Of the five recognized rhinoceros species, three are listed as Critically Endangered, one is listed as Vulnerable, and only one, the white rhinoceros (*Ceratotherium simum*), is listed as Near Threatened. However, the northern white rhino subspecies (*C. simum cottoni*) is listed as Critically Endangered, and is believed to be extinct in the wild, with only three remaining individuals in captivity. Here, we present the complete genome sequences of four southern white and nine northern white rhinoceroses derived from cryobanked material from the San Diego Zoo Frozen Zoo. We examine genome-wide levels of genetic diversity and inbreeding in both southern and northern white rhinos in hope to aid future efforts towards genetic rescue and assisted reproduction. We also examine the recent population history and demography of these two white rhino populations, and identify potential regions of selection in the northern white rhino that may suggest local adaptation in this population.