# Study Reveals Inbreeding in Last Surviving Woolly Mammoths Without Explaining Extinction



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A recent study published in the journal *Cell* has revealed that the last surviving woolly mammoths, which lived on Wrangel Island off the coast of Siberia, were inbred. However, this genetic condition alone does not account for their eventual extinction.

Wrangel Island became isolated from the mainland approximately 10,000 years ago due to rising sea levels. The mammoth population on the island originated from no more than eight individuals but expanded to 200–300 within 20 generations. They existed on the island for about 6,000 years until their extinction.

Genetic analysis of 21 mammoth genomes, including 14 from Wrangel Island, showed low genetic diversity and signs of inbreeding. Nonetheless, the study led by evolutionary geneticist Love Dalen, from the Centre for Palaeogenetics, suggests that these factors were not critical in their extinction.

The research indicates that the population remained relatively stable until a mysterious and sudden event led to their extinction around 4,000 years ago. Marianne Dehasque, the first author, emphasized the gradual elimination of harmful mutations while noting the accumulation of mildly harmful mutations over time, highlighting the importance of genetic monitoring in conservation efforts.

The exact cause of their extinction remains unresolved, with researchers planning further genomic sequencing to uncover more details.