

# Siberian fossil revealed to be one of the oldest known domestic dogs

March 6 2013

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Analysis of DNA extracted from a fossil tooth recovered in southern Siberia confirms that the tooth belonged to one of the oldest known ancestors of the modern dog, and is described in research published March 6 in the open access journal *PLOS ONE* by Anna Druzhkova from the Institute of Molecular and Cellular Biology, Russian Federation, and colleagues from other institutions.

Human domestication of dogs predates the beginning of agriculture about 10,000 years ago, but when modern dogs emerged as a species distinct from wolves is still unclear. Although some previous studies have suggested that this separation of [domestic dogs](#) and wolves occurred over 100,000 years ago, the oldest known fossils of modern dogs are only about 36,000 years old.

The new research published today evaluates the relationship of a 33,000 year old Siberian fossil to modern dogs and wolves based on DNA sequence. The researchers found that this fossil, named the 'Altai dog' after the mountains where it was recovered, is more closely related to modern dogs and prehistoric canids found on the American continents than it is to wolves.

They add, ""These results suggest a more ancient history of the dog outside the Middle East or East Asia, previously thought to be the centers where dogs originated."

**More information:** Druzhkova AS, Thalmann O, Trifonov VA,

Leonard JA, Vorobieva NV, et al. (2013) Ancient DNA Analysis Affirms the Canid from Altai as a Primitive Dog. PLoS ONE 8(3): e57754. [doi:10.1371/journal.pone.0057754](https://doi.org/10.1371/journal.pone.0057754)

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Citation: Siberian fossil revealed to be one of the oldest known domestic dogs (2013, March 6) retrieved 20 March 2024 from <https://phys.org/news/2013-03-siberian-fossil-revealed-oldest-domestic.html>

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