

Man May Have Caused Pre-historic Extinctions

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New research shows that pre-historic horses in Alaska may have been hunted into extinction by man, rather than by climate change as previously thought.

The discovery by Andrew Solow of Woods Hole Oceanographic Institute, US, David Roberts of the Royal Botanic Garden, Kew and Karen Robbirt of the University of East Anglia (UEA) is published this week in Proceedings of the National Academy of Sciences (PNAS).

The accepted view had previously been that the wild horses became extinct long before the extinction of mammoths and the arrival of humans from Asia - ruling out the possibility that they were over-hunted by man. One theory had been that a period of climate cooling wiped them out.

However, the researchers have discovered that uncertainties in dating fossil remains and the incompleteness of fossil records mean that the survival of the horse beyond the arrival of humans cannot be ruled out.

The PNAS paper develops a new statistical method to help resolve the inherent problems associated with dating fossils from the Pleistocene period. The aim is to provide a far more accurate timetable for the extinction of caballoid horses and mammoths and, ultimately, the cause.

"This research is exciting because it throws open the debate as to whether climate change or over-hunting may have led to the extinction of pre-historic horses in North America," said UEA's Karen Robbirt.

The Pleistocene period refers to the first epoch of the Quaternary period between 1.64 million and 10,000 years ago. It was characterised by extensive glaciation of the northern hemisphere and the evolution of modern man around 100,000 years ago. It is known that the end of the Pleistocene period was a time of large-scale extinctions of animals and plants in North America and elsewhere but the factors responsible have remained open to question, with climate change and over-hunting by humans the prime suspects.