

PLEISTOCENE EPOCH: LARGER CARNIVORES CHECKED THE POPULATION OF LARGER  
HERBIVORES

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Scientists have always wanted to know why the ecosystem was not destroyed during the Pleistocene Epoch when larger herbivores such as mammoths and mastodons among other larger mammals grew in population.

But now they have their answer: equally larger carnivores such as extinct lions and sabertooth cats among others checked the population of the larger herbivores by preying on them.

Matthew Hayward of Bangor University College of Natural Sciences in England, William Ripple of Oregon State University, Carlo Meloro of Liverpool John Moores University in England and V. Louise Roth of Duke University among others said the ecosystem was able to support the larger herbivores because the equally hungry carnivores checked their growing numbers.

"Recreating these [Pleistocene] communities is not possible, but their record of success compels us to maintain the diversity we have and rebuild it where feasible," the researchers wrote.

The researchers published their findings in the journal *Proceedings of the National Academy of Sciences*.

Leading the other researchers, a [UCLA](#) evolutionary biologist, Blaire Van Valkenburgh, stated that the lions of those ages were much larger than those of today, and so they were able to attack and kill a number of giant ground sloths and mastodons among others; and this prevented the large herbivores from overrunning the Pleistocene ecosystem which ended nearly 11,700 years ago.

"Based on observations of living mega-herbivores, such as elephants, rhinos, giraffes and hippos, scientists have generally thought that these species were largely immune to predation, mainly because of their large size as adults and strong maternal protection of very young offspring," said Van Valkenburgh.

"Data on modern lion kills of elephants indicates that larger prides are more successful and we argue that Pleistocene carnivore species probably formed larger prides and packs than are typically observed today – making it easier for them to attack and kill fairly large juveniles and young adult mega-herbivores."

The researchers were able to establish certain facts about the Pleistocene animals by analyzing teeth fossils and then comparing them to the body mass of today's animals, showing that the extinct carnivores are 50% to 100% larger than today's descendants. The age and shoulder height of former carnivores measured with height and body mass of today's elephants show these were capable of being preyed upon back then.