Causes of Extinction Probed
Climate, Humans Contributed to Extinction
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About 10,000 years ago, the Pleistocene Era ended, spelling doom for two thirds of the mammals on Earth that weighed more than 44 kilograms, including mammoths, saber-toothed tigers and many others.

Berkeley paleontologist Anthony D. Barnosky has theorized that the widespread extinctions were caused by a combination of climate changes and human activities that are not unlike what is happening today.

"There has been a lot of controversy surrounding the cause of this extinction for decades," said Barnosky. Previous studies attributed those extinctions almost exclusively to human hunting. Barnosky's new study pulls together existing data and tries to examine what part human hunting and climate changes played in the extinction.

The study revealed that climate changes caused by natural shifts in the Earth's orbit that occur every 100,000 years were responsible for a large part of the mammal extinctions. Human activities, such as hunting and the fragmentation of animal populations due to forest burning, pushed them into extinction.

The study notes that conditions existing today, including global warming and the rapid growth of human populations, could lead to the extinction of more large mammals.

One of the major troubles facing large mammals is that their habitats are now largely restricted to wildlife refuges that are surrounded by fences. With climate changes occurring, the animals normally track climate changes by migrating to new areas that match the conditions of their old habitats. However, with fences surrounding the wildlife refuges, their migration is impeded.

Barnosky states that in addition to the long-term goal of preventing global warming it will be necessary to make wildlife reserves capable of allowing mammal populations to track climate changes or to physically relocate the mammals to prevent them from dying off.

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