

# Animals future cannot be predicted on climate change

December 27, 2011

4:25 AM MST



This painting by artist Carl Buell depicts a scene from the late Eocene of North America. The rhino-like animals in the background are brontotheres. The pony-sized Hyracodon, a closer relative of living rhinos, in the foreground.  
*Courtesy of Carl Buell*

An exhaustive study of the effects of [climate change](#) on animal populations over the past 65 million years published at the Proceedings of the National Academy of Sciences on December 26, 2011, concludes that the future of animal populations cannot be predicted based on climate change.

The researchers found that the last six distinct, consecutive waves of mammal species diversity, or "evolutionary faunas" were caused by climate change.

The most important factor in the decline of animal species was the affect on food sources (particularly relevant for herbivores). As climate change produced a decrease in food supply the [animals](#) either evolved to consume other food supplies or died out.

This is the first study to examine the correlation of climate change and patterns of animal diversity and evolution.

Professor Christine Janis of [Brown University](#) led a team of researchers in this research that included Borja Figueirido (Brown University), Juan Perez-Claros and Paul Palmqvist at the University of Malaga and Miguel De Renzi at the University of Valencia in Spain. Figueirido is also affiliated with Malaga.

“To the extent that the study helps clarify scientists' understanding of evolution amid climate changes, it does not do so to the extent that they can make specific predictions about the future, Janis said. But it seems all the clearer that climate change has repeatedly had meaningful effect over millions of years.”

The research was reviewed at the [Eureka Alert](#) web site on December 26, 2011.

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