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Paleoecology

I'd like to discuss one of my favorite hobbies, yes, Paleoecology, the study of our original ecosystems here in the upper Midwest. There are some people out there confused about what constitutes a "native" ecosystem. The Michigan Nature Conservancy estimates that 1% or less of our State's landscape is in its original pre-Columbian condition.



Australian author, paleontologist, and Marsupial biologist Tim Flannery has written a very fascinating book called [*The Eternal Frontier: An Ecological History of North America and Its Peoples*](#). On pages 206-229 he talks about how almost all of our native mega-fauna, Lions, Camels, Short Faced Bears, Long Horned Bison, Stag Moose, Dire



Wolves, Giant Ground Sloths, Mastodons and Mammoths died off, and were replaced by Grizzly Bears, Bison, Elk, Moose, White Tailed Deer, and Wolves: all in the last 13,000 years!

And that pre-Columbian ecology of a very brief 13,000 years or so was a degraded, diminished version of what had evolved here over millions of years, due to the loss of most of our mega-fauna and keystone species such as Mastodons and Mammoths. Needless to say, the plants and landscapes also had dramatic changes with the loss of the native Fauna. So, looking for a "native" Michigan ecosystem? You'd better hop in your time machine and go back over 13 thousand years!

But hey, you want to talk Paleoecology? Let's go way back to the late Cretaceous period some 70 million years ago. According to Flannery in the same book, page 33, northern North America was the primary home of Ginkgo, Dawn Redwood, and Katsura! In fact *Metasequoia glyptostroboides* or Dawn Redwood dominated within the Arctic Circle in that warmer era according to the fossil record. I hope this little diatribe makes you think more carefully about our present day ecosystems and natural landscapes. By the way, don't miss Mr. Flannery's Magnus opus, [*The Future Eaters*](#), about the ecological history of Australia, New Zealand and New Guinea.



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