The cause of the mass extinctions at the end of the Pleistocene era is widely debated. For ecologists, humans played a vital role in the destruction of species and the alteration of ecosystems. However, archaeologists have been unable to find the necessary evidence to support this conclusion. Regardless, the validity of the Overkill Hypothesis is not pertinent to the modern challenges we face.

While not believed by all, many ecologists prescribe to some variant of the Overkill Hypothesis. This claims that native humans across various geographies hunted megafauna to extinction. As the world experienced an interglacial period between the Pleistocene and Holocene, humans used their overwhelming intelligence to systematically hunt and kill megafauna across the world. In North America alone, 33 of 45 genera of large-bodied mammals were extinct by the end of the Pleistocene. Although the earth experienced interglacial periods before, the one experienced at the end of the Pleistocene saw mass extinctions at an unprecedented scale. The culprit for these extinctions, ecologists believe, are humans.

Ecologists view this as a cautionary tale about the relationship between humans and the planet. If this is true, humans are nothing more than ruthless predators, who have been driving species to extinction ever since they’ve been on earth. With this hypothesis, humans are terrible creatures for the earth and must be stopped.

However, many archaeologists remark that there is scant evidence of this hypothesis. Archaeologists have only found 16 instances of humans hunting or scavenging megafauna in North America. In those 16 instances, only five genera are represented (Meltzer 2020). Moreover, only 18 genera are known to still be surviving by the times humans arrived in North America. This compels archeologists to argue of the existence of other mechanisms that drove the extinction of these species.

Indeed, this transition was “marked with rapid oscillations” of temperatures, thereby putting significant climate stress upon the megafauna of this era (Meltzer 2020). Moreover, modeling suggests that ecological change had began before humanity’s arrival in Australia (Bird 2013). While archeologists do admit that humans may have played some role in the extinction of megafauna, they claim that the archeological and climate data suggests that humans played a more indirect role – perhaps through landscape changes – rather than methodically hunting megafauna to extinction.

The Overkill Hypothesis need not be true for Pleistocene mass extinctions to be relevant to modern conservation biology. While definitive answers may end long-standing academic debate, modern conservationists should be concerned with today’s climate stressors and humanity’s mass carbon emissions. The species lost during the Pleistocene will never return, so we must focus on making current ecosystems work for the species that remain. Whether or not humans were the one to do it, these animals are extinct and that brought large ecological affects on the planet. Knowing the root cause of this phenomena will not change its ultimate consequences for modern humans.

Knowing why something happened in the past will not help modern conservationists model new climate outcomes, protect current vulnerable keystone species, remove carbon from the atmosphere, and lobby governments for increased land preservation. While knowing why megafauna disappeared at the end of the Pleistocene is essential for resolving paleontological and archaeological inquiries, it does little to help protect the ecosystems of today’s earth. The damage is done, and we must now work to rectify it.