Student Directed Study

Question:

What roles have human activity played in the decrease of megafauna population in Arctic Climates?

Megafauna Species: (Alive and Extinct)

* Woolley Mammoth
* Giant Sloth
* American Lion
* Muskox
* Polar Bears
* Smilodon (Saber-Toothed Tiger)
* Caribou

The mass extinction of Megafauna species happened at the end of the last ice glacial period. It is commonly referred to as the Holocene extinction. This begun after the Pleistocene. These things occurred around 10,000 BCE. The Holocene extinction affected the entirety of the world.

What is Holocene?

* Holocene is defined as the geological epoch that began after the Pleistocene and continues to the present time. This period was responsible for wiping out much of the megafauna populations.

What is Pleistocene?

* Pleistocene is the geological epoch which occurred before the Holocene extinction. This span withheld the worlds recent period of Glaciations.

What is a geological epoch?

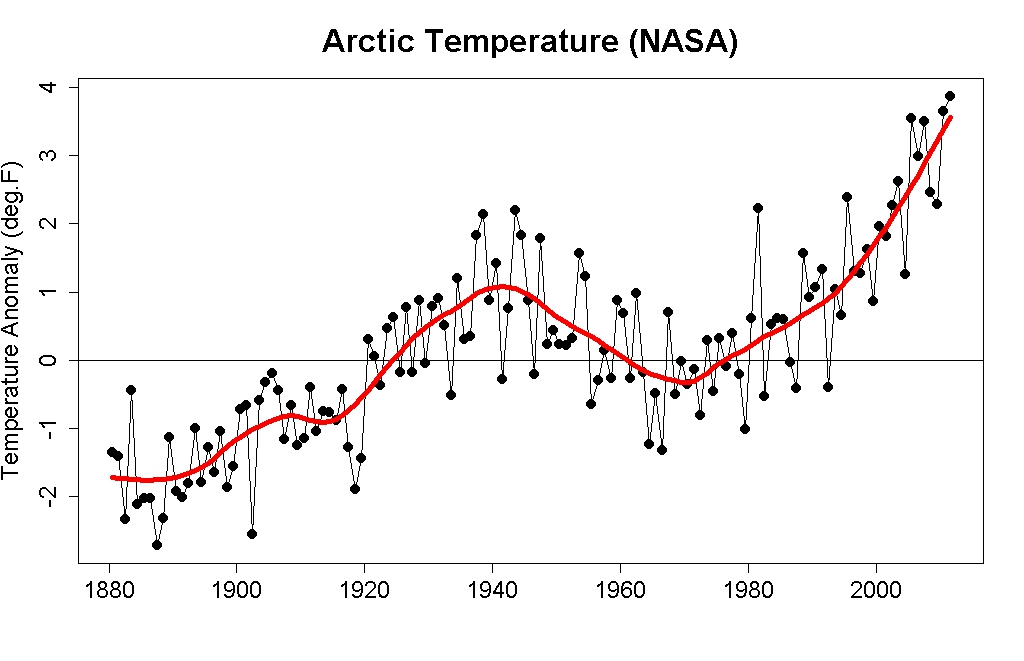
* A geologic epoch is a subdivision of the geological timescale that is longer than an age and shorter than a period. We’re currently living in the Holocene Epoch.

Possible causes for the Holocene extinction:

* Human Hunting
* Climate Change
* Disease
* Putative Extraterrestrial Impact

Much of the world’s population of Megafauna began to die out once human numbers began to increase. During the beginning of the Holocene extinction, a movement called the Holocene Era began (also called the Human Era) began. This was a time of colonization of humans. Humans turned into much less isolated beings and began to increase in numbers. More humans mean more food needed. However, since then there have been laws put in place that restrict the amount of animals that can be hunted.

Arctic Megafauna species base their existence highly around the cold climate and the things they find there (snow, ice, cold water species for feeding on). With the climate seeming to rise, this way of life is beginning to be threatened.

With the average temperature rising by 3 degrees in just over a hundred years, the habitats of many arctic megafauna species is being jeopardized.

Causes of Climate Change:

* Water Vapour
* Carbon Dioxide
* Methane
* Chlorofluorocarbons
* Driving
* Heating
* Building
* Running Equipment

How to help reduce global warming and the effects of global warming:

* Greener Energy
* Driving Smarter Cars
* Reduce Global Pollution
* Using Reusable Resources rather than non

How is this connected to the 3 pillars?

* Environmental
  + This topic connects to the environmental pillar because it is dealing with the effects of climate change. It looks in to how climate change can damage the earth as well as how climate change we can help to lessen the effects of climate change.
* Economic
  + It is extremely potential that if these species are dying out, governments may have to launch environmental reclamation projects. This would use up some of the financial resources and put a further strain on other sections of the economy.
* Social
  + In much of the arctic regions, these megafauna species are part of the culture. Without these species alive, part of the culture dies out.