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Warm early Eocene Antarctica

Michael J. Oard

Within evolutionary/uniformitarian history, the early Eocene is considered to have been very warm. In fact, the Paleocene-Eocene boundary is considered a thermal maximum called the Paleocene-Eocene Thermal Maximum (PETM). A great deal of research has documented warmth in the global paleoflora and paleofauna record at this stratigraphic boundary.[1–4] Numerous climate simulations have attempted to explain it, with little success.[5]

Proxy evidence for a very warm Arctic

Uniformitarian research has concluded that the high latitudes, those areas higher than 60°, had temperatures greater than 30°C in the early Eocene (according to their timeframe).[6] In addition, little seasonal contrast was identified between winters and summers, resulting in an equable climate. Mean annual temperatures in the Arctic at the PETM were up to 25°C.[7] Swamp cypress trees and lemurs were discovered in the north-east Canadian islands, both indicative of much warmer temperatures and greater precipitation.[8–10] The Arctic Ocean is inferred to have been not only ice-free, but having temperatures of 18–24°C![11,12]

With such a warm climate at mid and high latitudes of the northern hemisphere, the likely consequence is too much heat in the low latitudes. Climate simulations overwhelmingly confirm this. However, on investigation, uniformitarian scientists are 'discovering' that the low latitudes did not in fact overheat,[13] making one wonder whether the ubiquitous circular reasoning[14] is driving the 'results'.

Antarctic had near-tropical warmth

It is easier to envision the Arctic being warm but not Antarctica because there is an ocean at the North Pole rather than a high-relief land mass. A warm Arctic Ocean would warm the surrounding high latitudes, but Antarctica should have been relatively cool because of its high latitude. High-latitude continents cool off considerably at night and in winter, especially with four to six months of total darkness. In addition, without the weight of today's ice sheets applying isostatic downward pressure, Antarctica would presumably have been at higher altitude before glaciation, thereby enhancing the effects of cooling.

However, even Antarctica apparently did not escape the early Eocene warmth. A new report concludes that Antarctica was 'near-tropical',[15] based on identification of near-tropical paleoflora including palms similar to those found in Australia, New Guinea, and New Caledonia. The fossil flora imply that winters would have to have been warmer than 10°C and frost-free! The paleoflora also indicated high moisture and precipitation. Replicating these conditions is extremely challenging for climatic simulations.[5]

Gratuitous global warming alarm

Many articles on early Cenozoic warmth, and even late Cenozoic pre-Ice Age warmth, include the obligatory global warming alarm. Here is how Pross *et al.* create alarm:

> "Recently the early Eocene has received considerable interest because it may provide insight into the response of Earth's climate and biosphere to the high atmospheric carbon dioxide levels that are expected in the near future as a consequence of unabated anthropogenic carbon emissions."[16]

Figure 1. Mount Jackson, Antarctica, 3,184 metres, is located on the southern part of the Antarctic Peninsula and would have lacked snow and ice during the PETM.

However, the data strongly indicate that anthropological warming is greatly exaggerated and that most of the slight warming the earth has experienced since 1880 is caused by natural processes, leaving man's contribution small.[17]

Creation/Flood model implications

Can such warm-climate flora and fauna be explained within a Creation/Flood model? There are two likely possibilities.

The first is that if the pre-Flood world was uniformly warm, this would have allowed warm-climate animals and plants to live at high latitude. When the Flood came, they were simply buried close to where they lived.

Second, warm-climate flora and fauna could have been transported from low and middle latitudes to high latitudes by currents or by rafting on log mats. Given the powerful currents expected at times during the Flood, log mats could have been transported to polar latitudes in a matter of days. The second explanation is supported by the thick growth rings in many fossil trees found in high latitudes; had the trees grown where found, the axial tilt of the planet would have prevented sufficient sunlight for the development of such thick rings.[18]

High-latitude warm-climate vegetation also has consequences for the location of the Flood/post-Flood boundary. Could such warmth have occurred early in the post-Flood period, if the Eocene strata were deposited soon after the Flood? Advocates of this position must argue that these plants and animals lived at these same high latitudes *after* the Flood. Warm sea surface temperatures could produce modest warming on the high-latitude land masses but probably not nearly enough to produce near-tropical temperatures. Winter temperatures well below freezing would still persist over high-latitude land masses due to the low angle of the sun, no matter how warm the ocean temperatures. High and mid-latitude warm-climate paleoflora and paleofauna provide strong evidence that the Flood/post-Flood boundary is above the Eocene strata.[19]

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