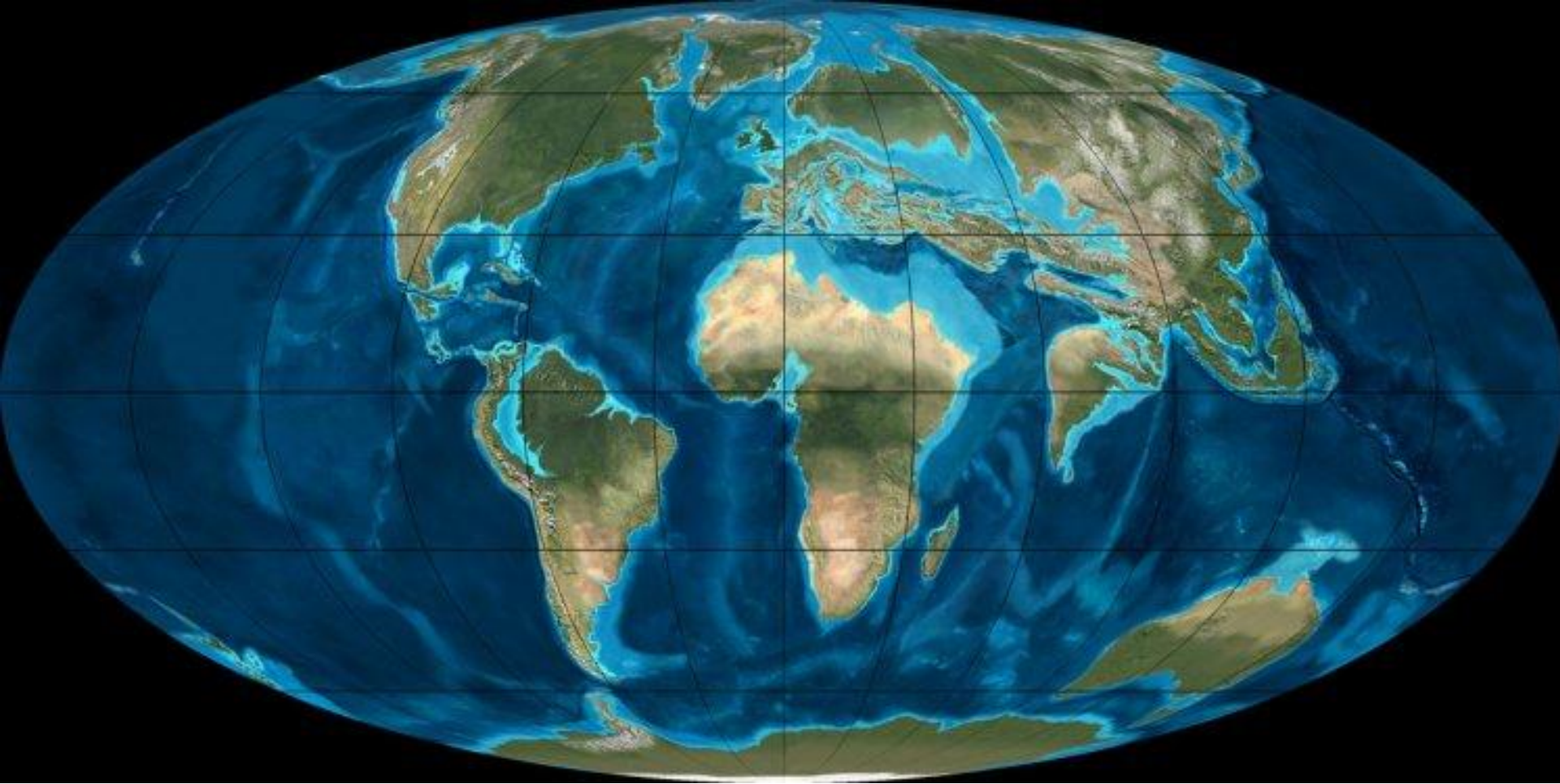


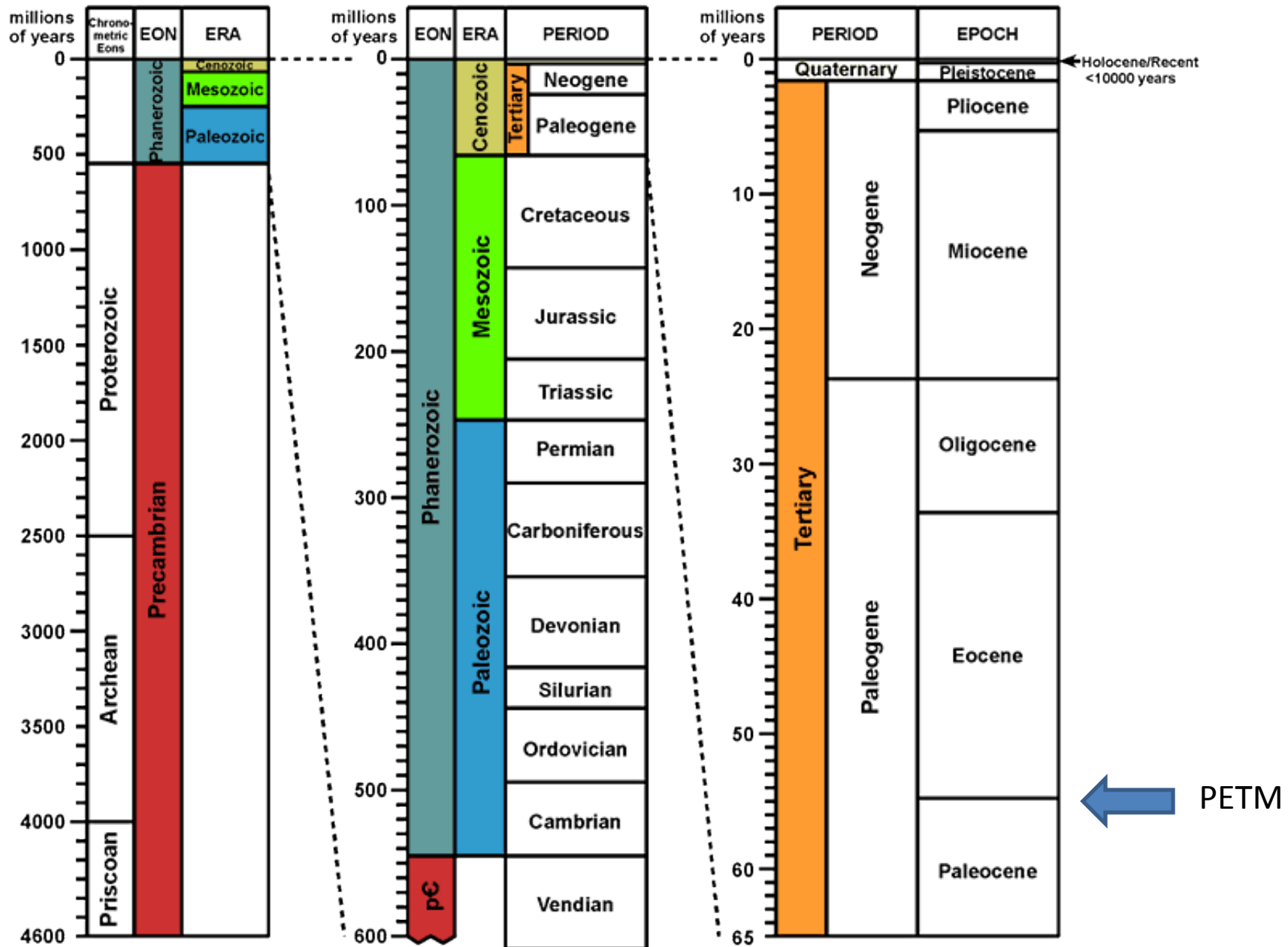
The Paleocene-Eocene Thermal Maximum

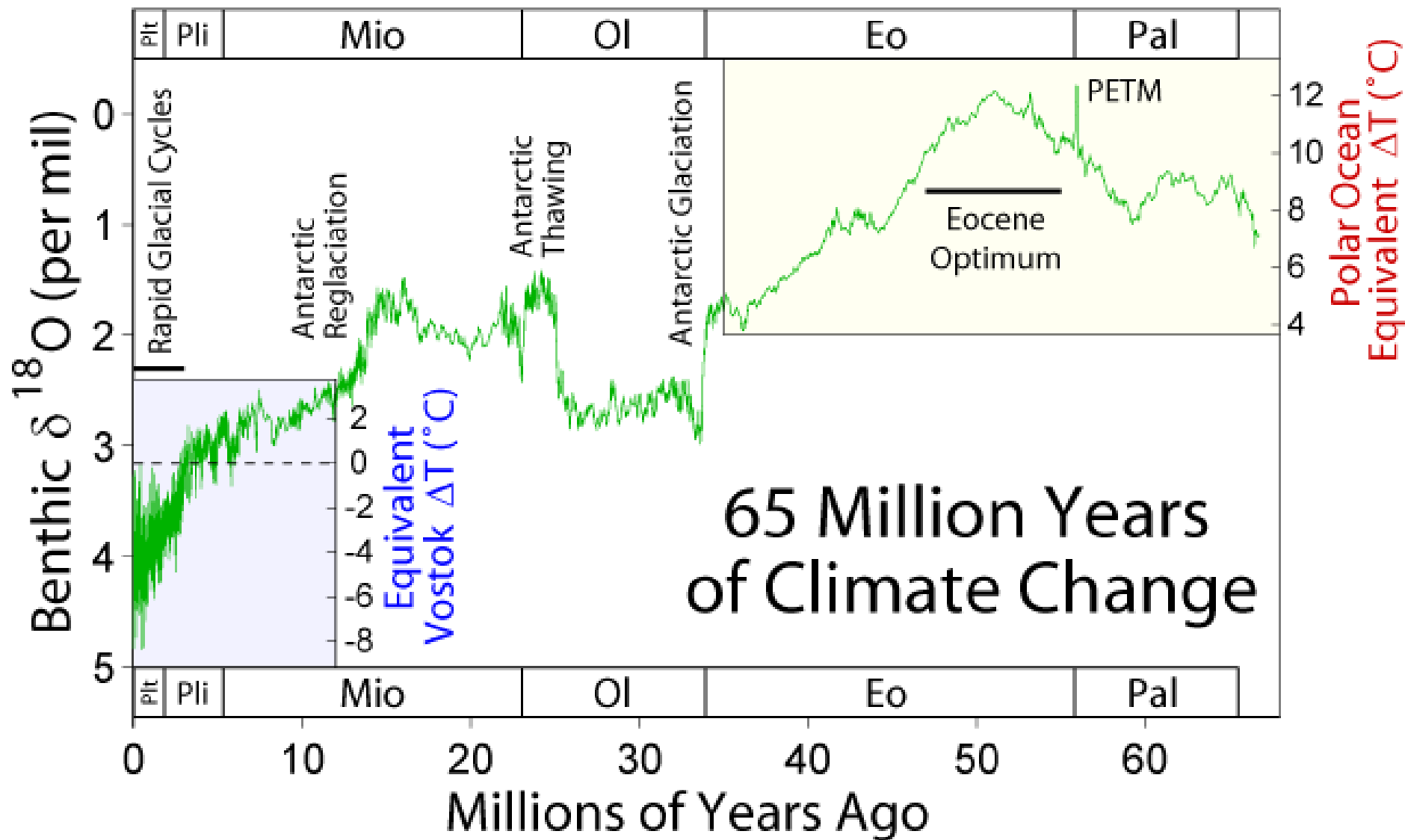
The Earth during the Paleocene



GEOLOGIC TIME SCALE

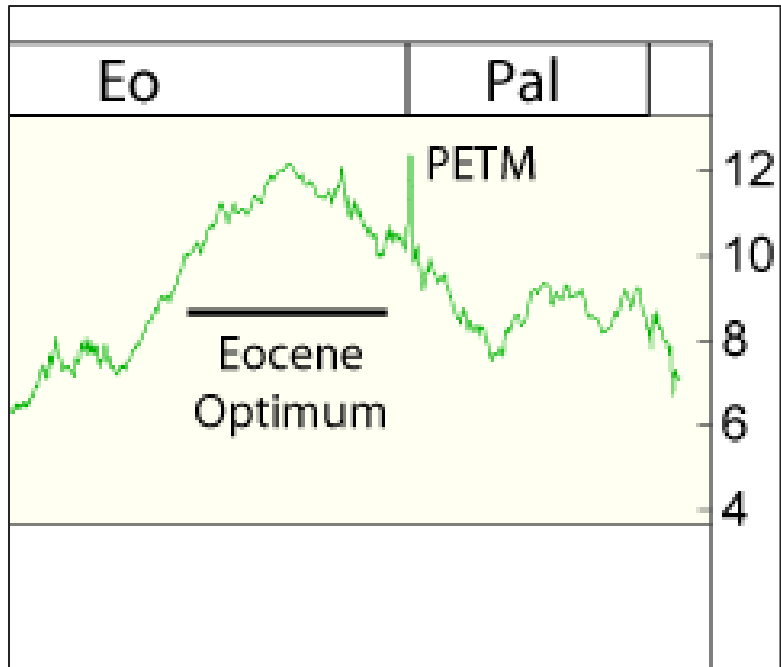
(Based on data from Gradstein and Ogg, 1996 (Phanerozoic); and Harland et al., 1990)



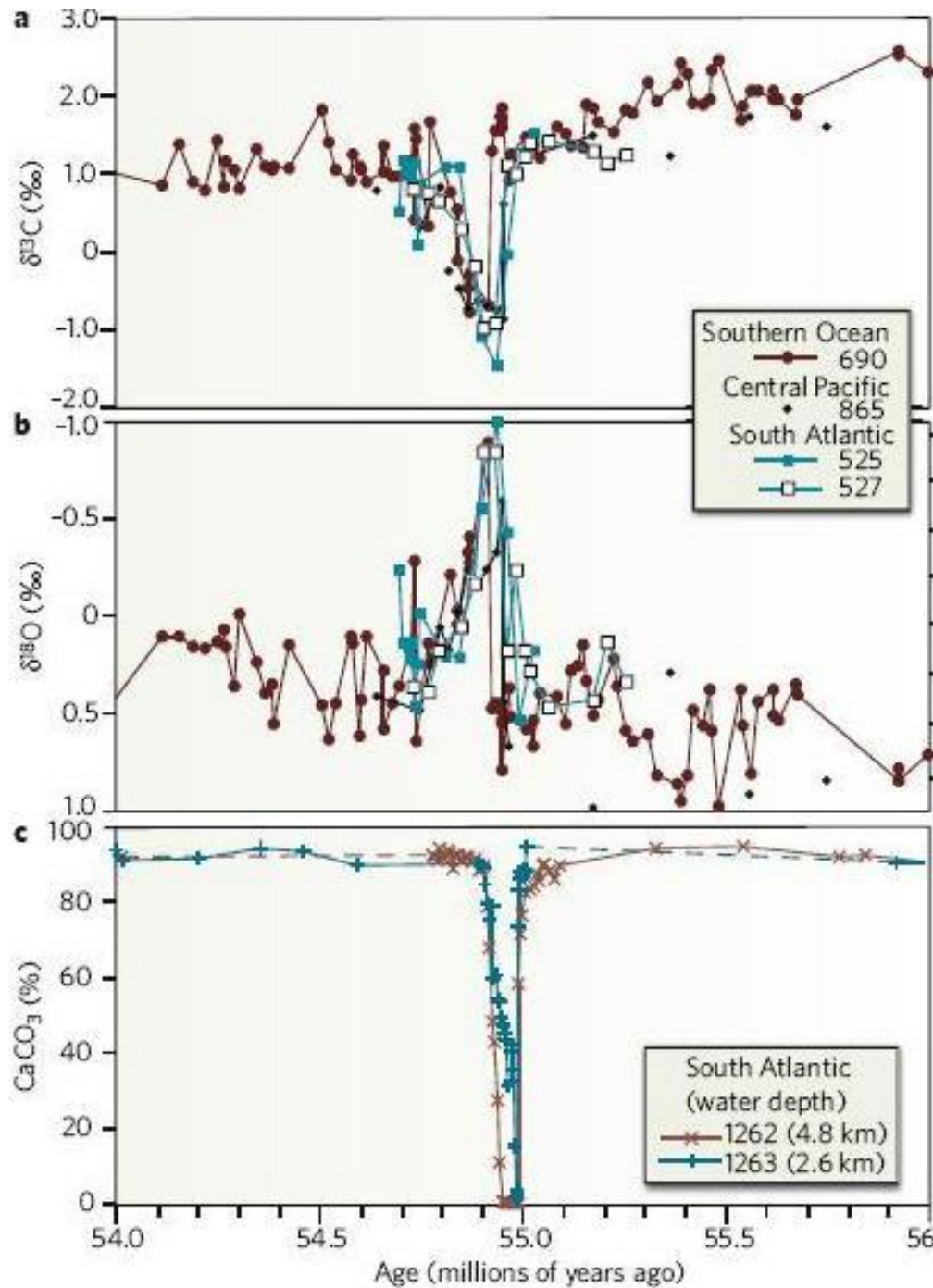


PETM

Paleocene-Eocene Thermal Maximum



- Warming at all latitudes (by $\sim 6^{\circ}$ C)
- Warming in both surface and deep parts of the oceans, and on land
- Warm conditions lasted 100,000 to 150,000 years



Ocean-core records show: a decrease in ^{13}C (representing the contribution of methane hydrate C to marine animal shells),

an increase in ^{18}O (representing higher global temperatures),

and a drop in CaCO_3 levels (representing the increased solubility of carbonates because of warmer ocean water)

