Did the Ewing Impact Produce a Large Change in the Climate?

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We have discovered a 150 km diameter impact crater in the Pacific, the Ewing impact crater of early late Miocene age (7 to 11 Ma). This crater is much larger than the Eltanin crater (estimated diameter 24 to 80 km) (Gersonde et al., 1997). The impact event that formed the Eltanin crater is believed to have produced a major change in climate. There is a major negative excursion in $\delta^{13}C$ and a major positive excursion in delta ^{18}O that are the right age to represent a response to the Eltanin impact event. The case for climate change due to the Eltanin impact event is relatively strong because the Eltanin event is well dated at 2.15±0.5 Ma. In contrast, the Ewing impact is too poorly dated to make a good case for a cause and effect relationship between the impact and subsequent climate change. By adequately dating the Ewing impact event and by tying it to $\delta^{18}O$ and $\delta^{13}C$ records in cores containing the impact layer, we will determine if the Ewing impact produced a major change in climate.