



Terrestrial palynology of earliest Paleocene transitional unit within the Chicxulub impact basin

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In 2016, International Ocean Discovery Program (IODP) Expedition 364, with support from the International Continental Scientific Drilling Program (ICDP), cored through Paleocene and Eocene strata deposited within the Chicxulub impact basin. This study focuses on the terrestrial palynology (pollen and spores) preserved within the crater. The part of the project focusing on the early Eocene terrestrial palynology of the Expedition 364 core revealed a diverse and well-preserved pollen assemblage. Here we focus on the very basal part of the transitional unit (lowermost Paleocene) seeking to identify the oldest pollen and spores within the crater. The impact was followed by extreme conditions and here we seek to determine the timeframe for the return to normalized environments with reproductively mature vegetation. Samples from this core are the oldest palynological record from the Yucatán Peninsula.