



228-10: PRE-MASS EXTINCTION DECLINE OF LATEST PERMIAN AMMONOIDS

Tuesday, 24 October 2017

03:45 PM - 04:00 PM

📍 *Washington State Convention Center - Room 608*

The devastating end-Permian mass extinction is widely considered to be caused by large-scale and rapid greenhouse gas release by Siberian volcanism. Although the proximate extinction mechanisms are disputed, there is widespread agreement that a major extinction pulse occurred just below the biostratigraphically defined Permian–Triassic boundary. Statistical analyses of stratigraphic ranges and their confidence intervals do not comply with a single end-Permian extinction pulse of ammonoids in Iran. Extinction was gradual or stepped over the last million years of the Permian period. Analyses of body sizes and morphological complexity support a gradual decline over the same interval. Similar pre-mass extinction declines and disturbances of the carbon cycle have been reported from other regions suggesting a widespread, but often overlooked environmental deterioration at global scale well before the main extinction pulse. Ammonoids may have responded more strongly than other marine invertebrates because they were more sensitive to physiological stress.

Authors

Wolfgang Kiessling

Friedrich-Alexander-Universität Erlangen-Nürnberg

Martin Schobben

University of Leeds

Abbas Ghaderi

Ferdowsi University of Mashhad

Vachik Hairapetian

Islamic Azad University

Lucyna Leda

Museum fuer Naturkunde

Dieter Korn

Museum fuer Naturkunde

Final Paper Number 228-10

View Related Events

Day: Tuesday, 24 October 2017

Geological Society of America Abstracts with Programs. Vol. 49, No. 6

doi: 10.1130/abs/2017AM-301914

© Copyright 2017 The Geological Society of America (GSA), all rights reserved.