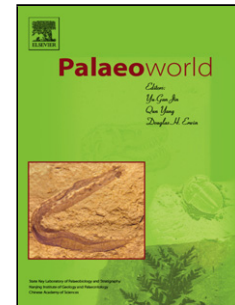


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Author: Uwe Brand Nigel Blamey Claudio Garbelli Erika Griesshaber Renato Posenato Lucia Angiolini Karem Azmy Enzo Farabegoli Rosemarie Came



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**Methane Hydrate: Killer cause of Earth's greatest mass extinction**

Uwe Brand <sup>a,\*</sup>, Nigel Blamey <sup>a</sup>, Claudio Garbelli <sup>b,\*\*</sup>, Erika Griesshaber <sup>c</sup>, Renato Posenato <sup>d</sup>, Lucia Angiolini <sup>b</sup>, Karem Azmy <sup>e</sup>, Enzo Farabegoli <sup>f</sup>, Rosemarie Came <sup>g</sup>

<sup>a</sup> Department of Earth Sciences, Brock University, 1812 Sir Isaac Brock Way, St. Catharines, Ontario L2S 3A1, Canada

<sup>b</sup> Dipartimento di Scienze della Terra, Via Mangiagalli 34, Università di Milano, 20133 Milan, Italy

<sup>c</sup> Department of Earth and Environment Sciences, Ludwig Maximilian Universität, Theresienstr. 41, 80333 München, Germany

<sup>d</sup> Dipartimento di Fisica e Scienze della Terra, Università di Ferrara, Polo Scientifico-tecnologico, Via Saragat 1, 44100 Ferrara, Italy

<sup>e</sup> Department of Earth Sciences, Memorial University, St. John's, NL A1B 3X5, Canada

<sup>f</sup> Dipartimento di Scienze della Terra e Geologico – Ambientali, Università di Bologna, Via Zamboni 67, 40126 Bologna, Italy

<sup>g</sup> Department of Earth Sciences, The University of New Hampshire, Durham, New Hampshire 03824, USA

\* Corresponding author. *E-mail address*: uwe.brand@brocku.ca, ubrand@brocku.ca

\*\* Present address: State Key Laboratory of Paleobiology and Stratigraphy, Nanjing Institute of Geology and Paleontology, Chinese Academy of Sciences, Nanjing, Jiangsu 210008, P.R. China

**Abstract**

The cause for the end Permian mass extinction, the greatest challenge life on Earth faced in its geologic history, is still hotly debated by scientists. The most significant marker of this event is the negative  $\delta^{13}\text{C}$  shift and rebound recorded in marine carbonates with a duration ranging from 2000 to 19 000 years depending on localities and sedimentation rates. Leading causes for the event are Siberian trap volcanism and the emission of greenhouse gases with consequent global warming. Measurements of gases vaulted in

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