

# Mass extinctions and the marine record

July 30 2007

---

Mass extinctions have long captured the imagination of scientists and non-scientists alike. A new volume published by the Geological Society of America includes some of the best evidence of the relationship between major environmental changes and changes in life on the planet.

Large Ecosystem Perturbations: Causes and Consequences focuses on evidence from ancient seas across different geological time intervals. Papers contain case studies on a large spectrum of ecosystem changes with varying causes and consequences.

"The interplay between major environmental perturbations and modifications in flora and fauna is best seen in the marine record, which provides very detailed, often complete, documentation of paleobiological changes," said Simonetta Monechi of the Università degli Studi di Firenze in Italy. Monechi is lead editor of the volume, with Rodolfo Coccioni, Università degli Studi di Urbino "Carlo Bo," and Michael R. Rampino, New York University, as co-editors.

Several papers focus on turnovers associated with the Paleocene-Eocene transition 55 million years ago when Earth experienced one of the most rapid and extreme global warming events recorded in geologic history. The small benthic extinction and the plankton turnover caused by the Paleocene-Eocene Thermal Maximum (PETM) led to major changes in mammalian life on land.

Other topics include the calcareous nannofossil change during the early Aptian Oceanic Anoxic Event, a severe Late Devonian mass extinction,

and the aftermath of a minor extraterrestrial impact dated as Late Cretaceous in the U.S. Gulf Coastal Plain.

Source: Geological Society of America

Citation: Mass extinctions and the marine record (2007, July 30) retrieved 9 April 2024 from <https://phys.org/news/2007-07-mass-extinctions-marine.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.