

2011-2012 Distinguished Lecture Abstract*

Peter Ward¹

*Abstract from 2011-2012 AAPG Foundation Distinguished Lecture presentation.

¹Departments of Biology, Earth and Space Sciences, Astronomy, University of Washington, Seattle, WA

The history of life is punctuated by five "major" mass extinctions. In recent years it has seemed that at least three, and perhaps all five were caused by extraterrestrial causes - from asteroid impacts to gamma ray bursts. New research, however, suggests that the Earth may have been a far worse enemy to its life than outer space has been. While the temporal coincidence of large body igneous provinces and mass extinction or mass depletion of life has long been noted, only recently have actual "kill" mechanisms become believable. In this talk the new understanding of mass extinctions will be presented – as will the question of whether or not the most probable cause – lowered oceanic oxygen levels as a consequence of reduced pole to equator temperature differentials - is of relevance to our own world.