

Mass extinction may not cause all organisms to 'shrink'

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The sizes of organisms following mass extinction events may vary more than previously thought, which may be inconsistent with the predictions of the so-called 'Lilliput effect,' according to a study published in *PLOS ONE* on February 5, 2014 by Caroline Sogot from University of Cambridge and colleagues.

Scientists associate mass [extinction events](#) like the Cretaceous-Paleogene (abbreviated K-Pg) event with a reduction in organism [size](#) in the aftermath, a phenomenon termed 'the Lilliput effect.' These pronounced changes are thought to be in response to lower food availability and other alterations in the environment that can occur following a [mass extinction event](#). Therefore, survivors of the K-Pg mass extinction should exhibit smaller body size than their pre-extinction relatives. To delve more into this effect, scientists investigated the changes in size of an aquatic invertebrate at the individual- and colony-level before and after the mass extinction.

Scientists analyzed of the 59 bryozoan species and found no significant change in body length. Additionally, the sizes of two types of bryozoan colonies, 210 Maastrichtian colonies and 163 Danian colonies, did not show consistent size decrease before and after the K-Pg extinction event, although maximum [colony size](#) did decline in three out of four surviving types of bryozoan. The authors suggest that the lack of size change in the majority of bryozoans studied here may indicate that the Lilliput effect is not universal at all levels, and that the response may vary across organisms.

Dr. Sogot added, "The absence of a clear 'Lilliput effect' in the bryozoans analysed in this study suggests that not all organisms respond in the same manner to all [mass extinction](#) events."

More information: Sogot CE, Harper EM, Taylor PD (2014) The Lilliput Effect in Colonial Organisms: Cheilostome Bryozoans at the Cretaceous–Paleogene Mass Extinction. *PLoS ONE* 9(2): e87048. [DOI: 10.1371/journal.pone.0087048](#)

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