

**HONR 259C: “Fearfully Great Lizards”: Topics in Dinosaur Research**  
Spring Semester 2007

Critical Review V: The Cretaceous/Paleogene Extinction and Recovery  
**DUE: Thursday May 3**

Overview

Beyond being big and scary, the most important thing about dinosaurs that the general public knows is that they died off catastrophically. Of course, YOU now know that they weren't all big, nor did they die out. But to what degree was the extinction of the non-avian dinosaurs catastrophic?

The extinction event between the Maastrichtian Age of the Late Cretaceous Epoch of the Cretaceous Period of the Mesozoic Era and the Danian Age of the Paleocene Epoch of the Paleogene (formerly “Tertiary”) Period of the Cenozoic Era is one of the most dramatic in the history of life. It saw the disappearance of far more types of organisms than the non-avian members of Dinosauria. It is also one of the most intensively studied events in the history of the Earth, with new analyses yielding important new information.

Less well-studied (although that is changing) is what happened afterwards: how quickly did the ecosystems of the world recover. Your last critical analysis will review various aspects of this event.

Specific Questions to Address

Did your analysis focus specifically on dinosaurian extinctions? On dinosaurs as part of a broader context? Or was it simply of non-dinosaurian data?

Was the paper focused on a particular site or sites, or did it deal more broadly or theoretically with the extinction?

Did the study focus on events prior to, during, and/or after the extinction proper?

What techniques were used to examine the extinction event or recovery?

In your analysis and observations, do the conclusions of the authors seem justified? Are there other reasonable hypotheses that you think might be better supported by the evidence? If so, what are they and how would the evidence better support them?