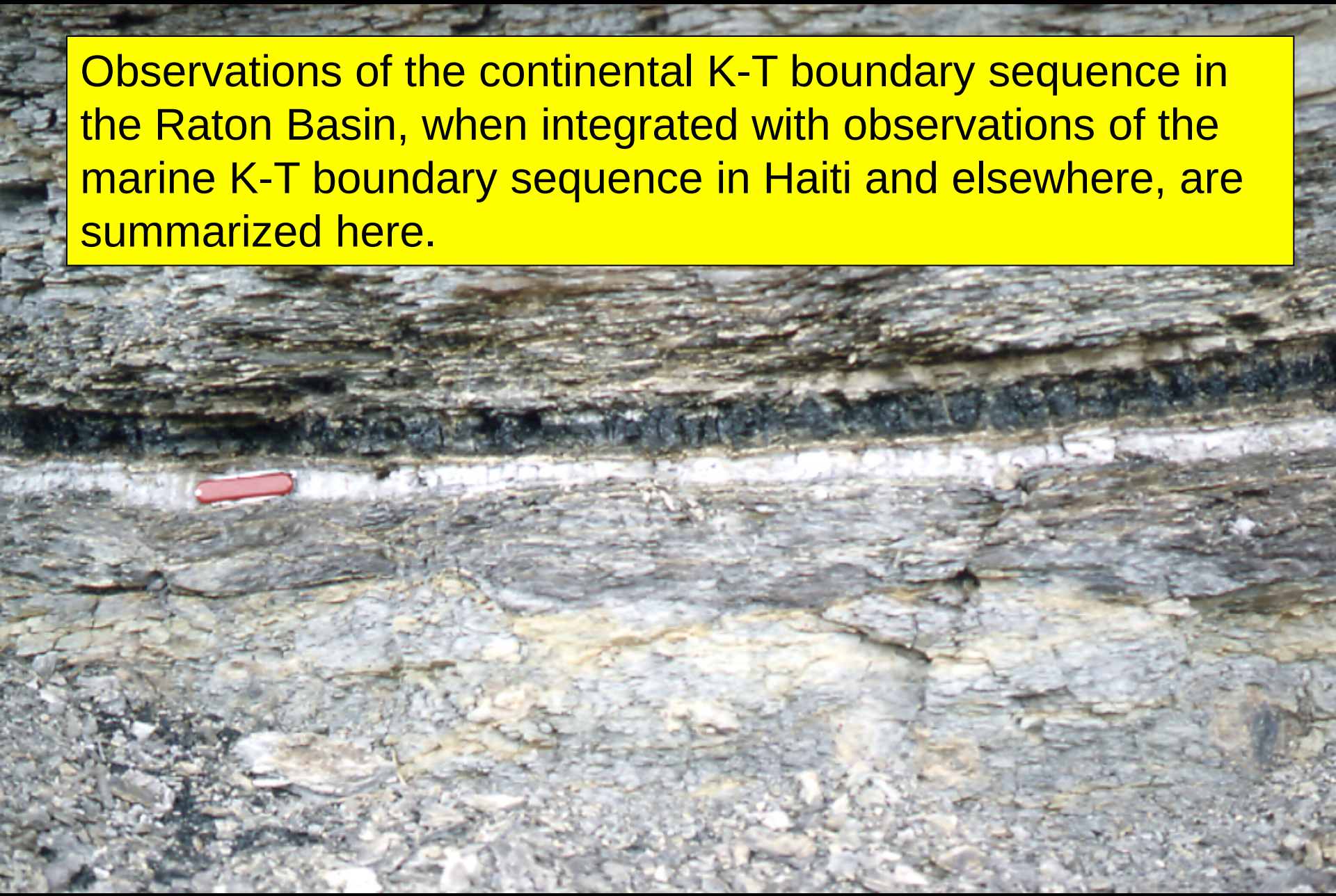
Raton Basin, Colorado

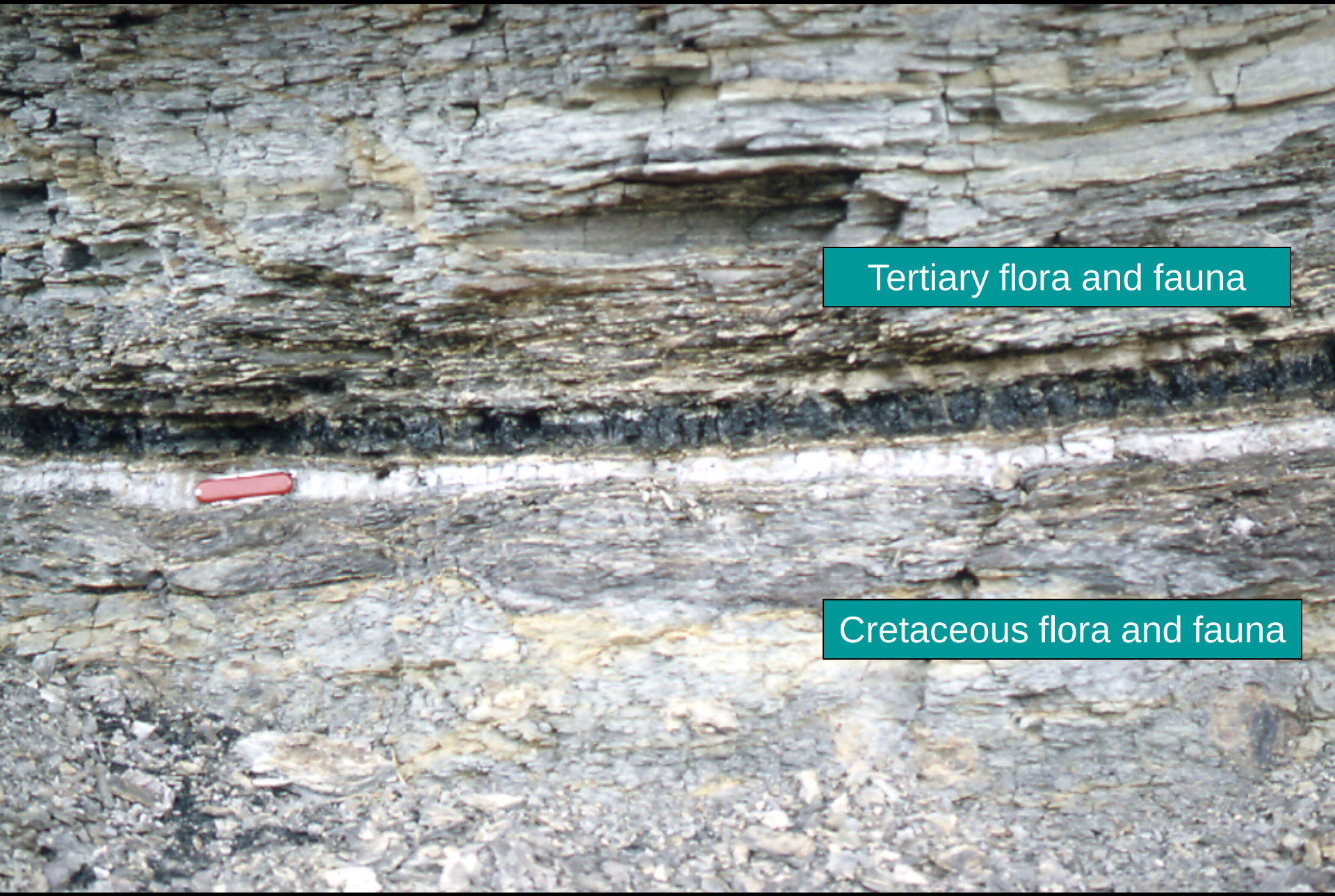


Observations of the continental K-T boundary sequence in the Raton Basin, when integrated with observations of the marine K-T boundary sequence in Haiti and elsewhere, are summarized here.

Cretaceous-Tertiary Boundary

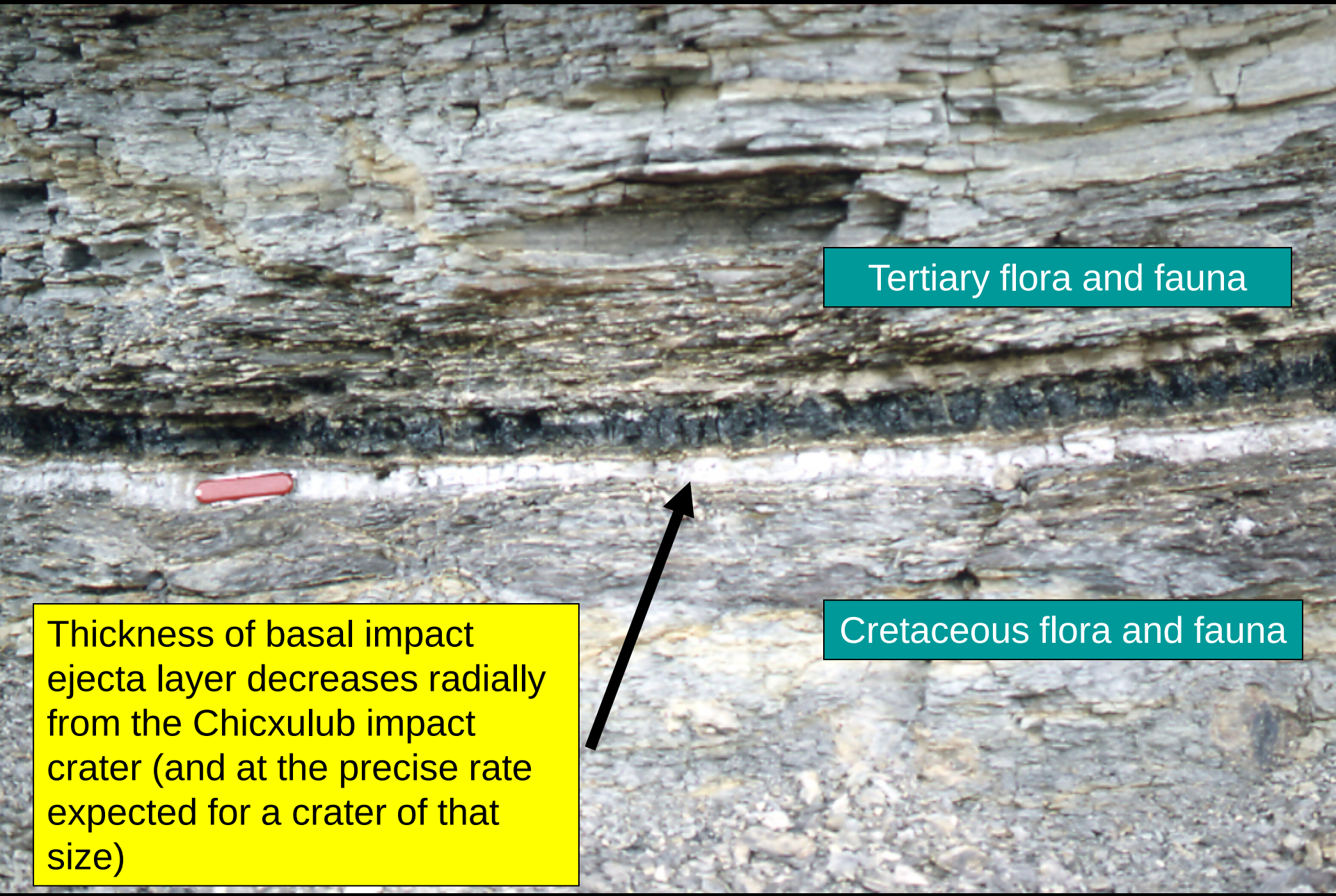
Photo by David A. Kring

Raton Basin, Colorado



Cretaceous-Tertiary Boundary

Photo by David A. Kring



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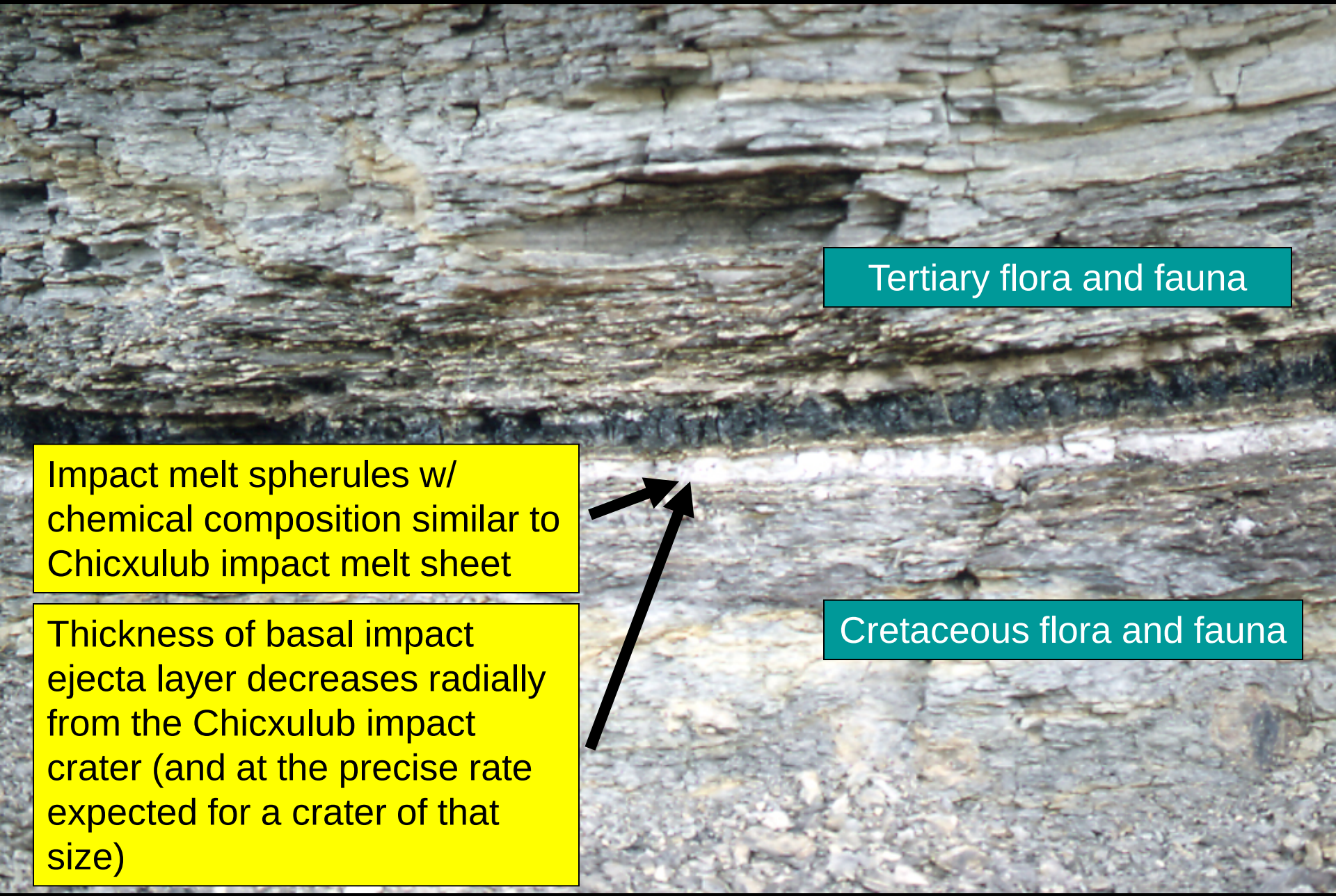

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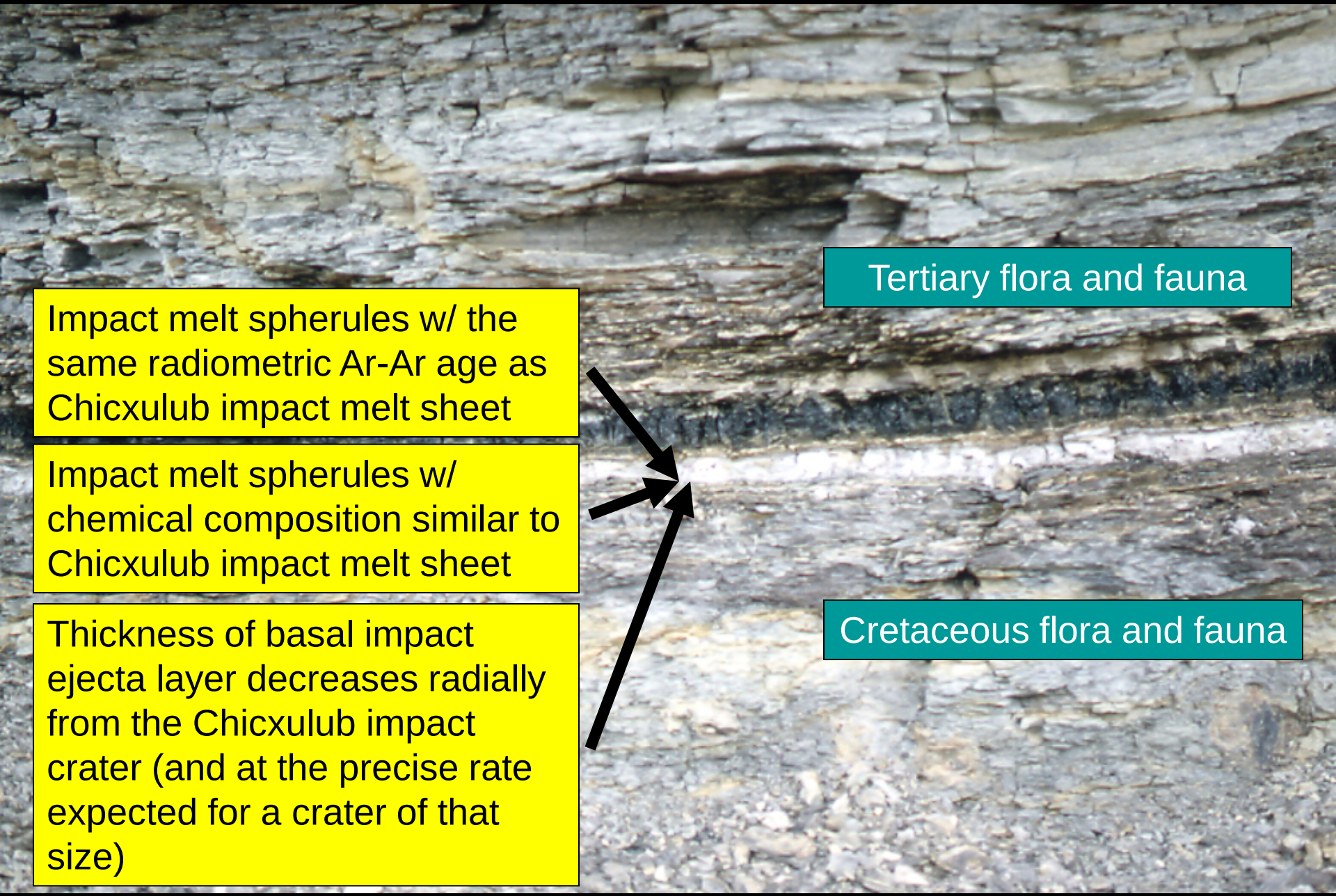

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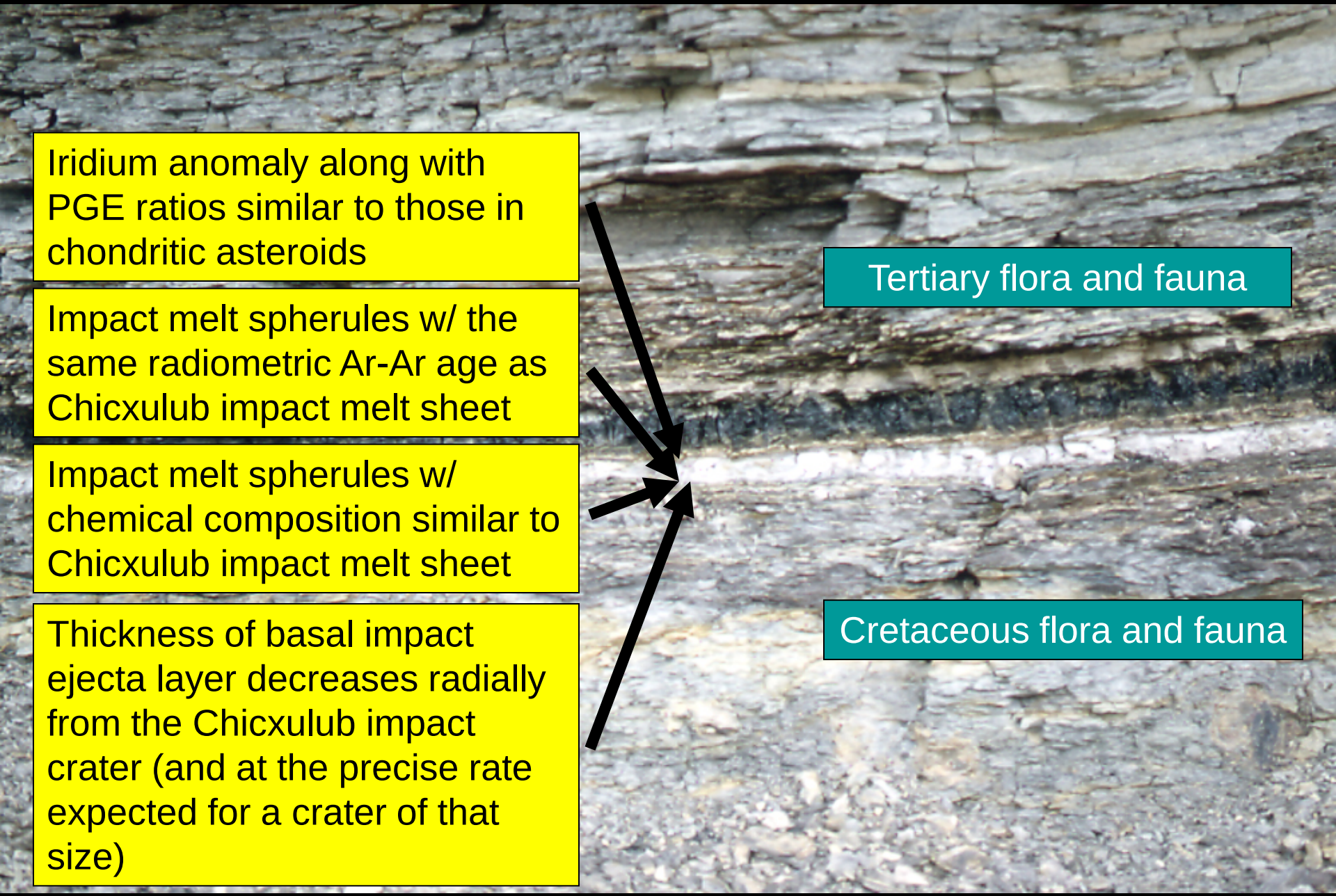

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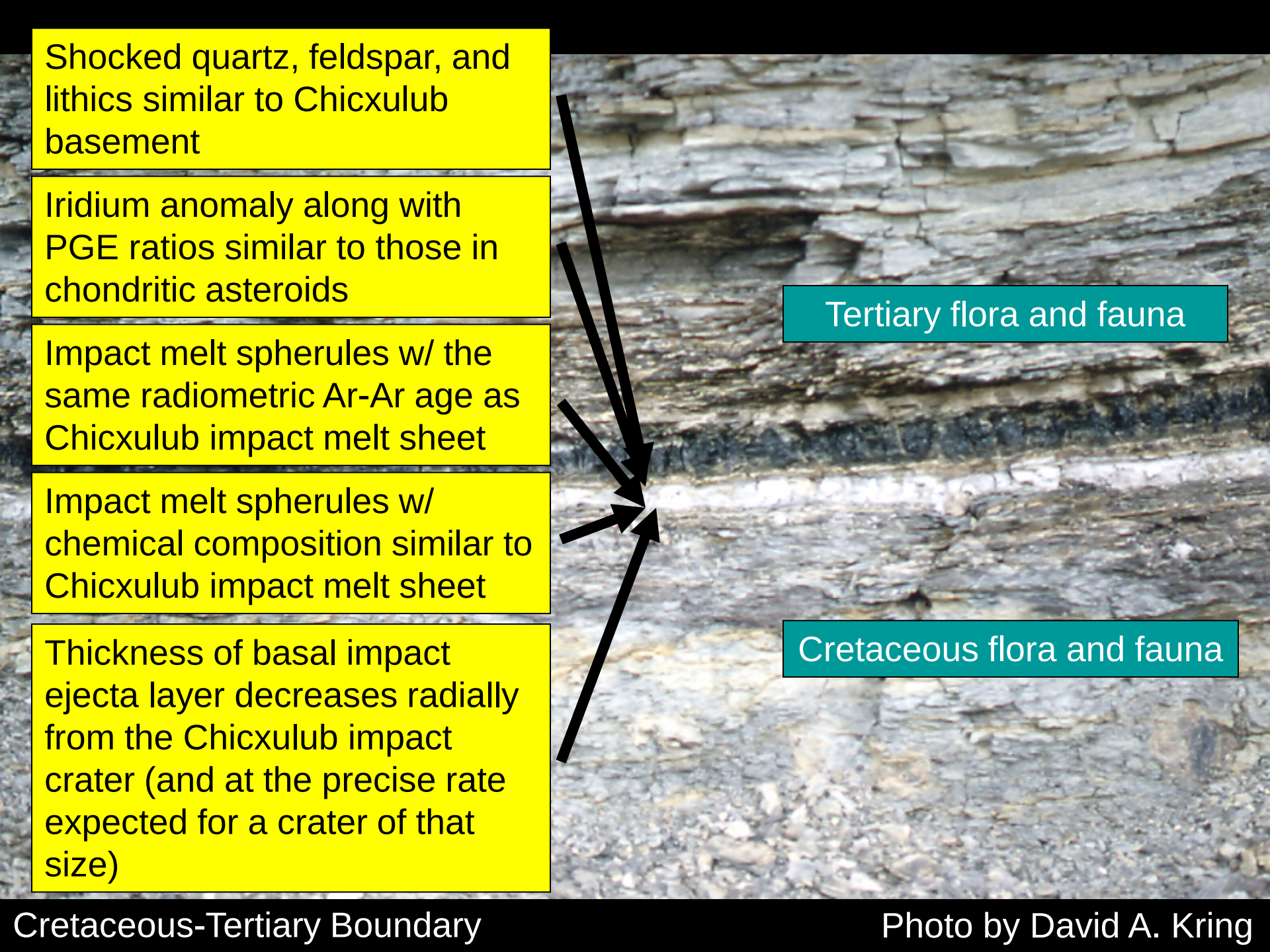

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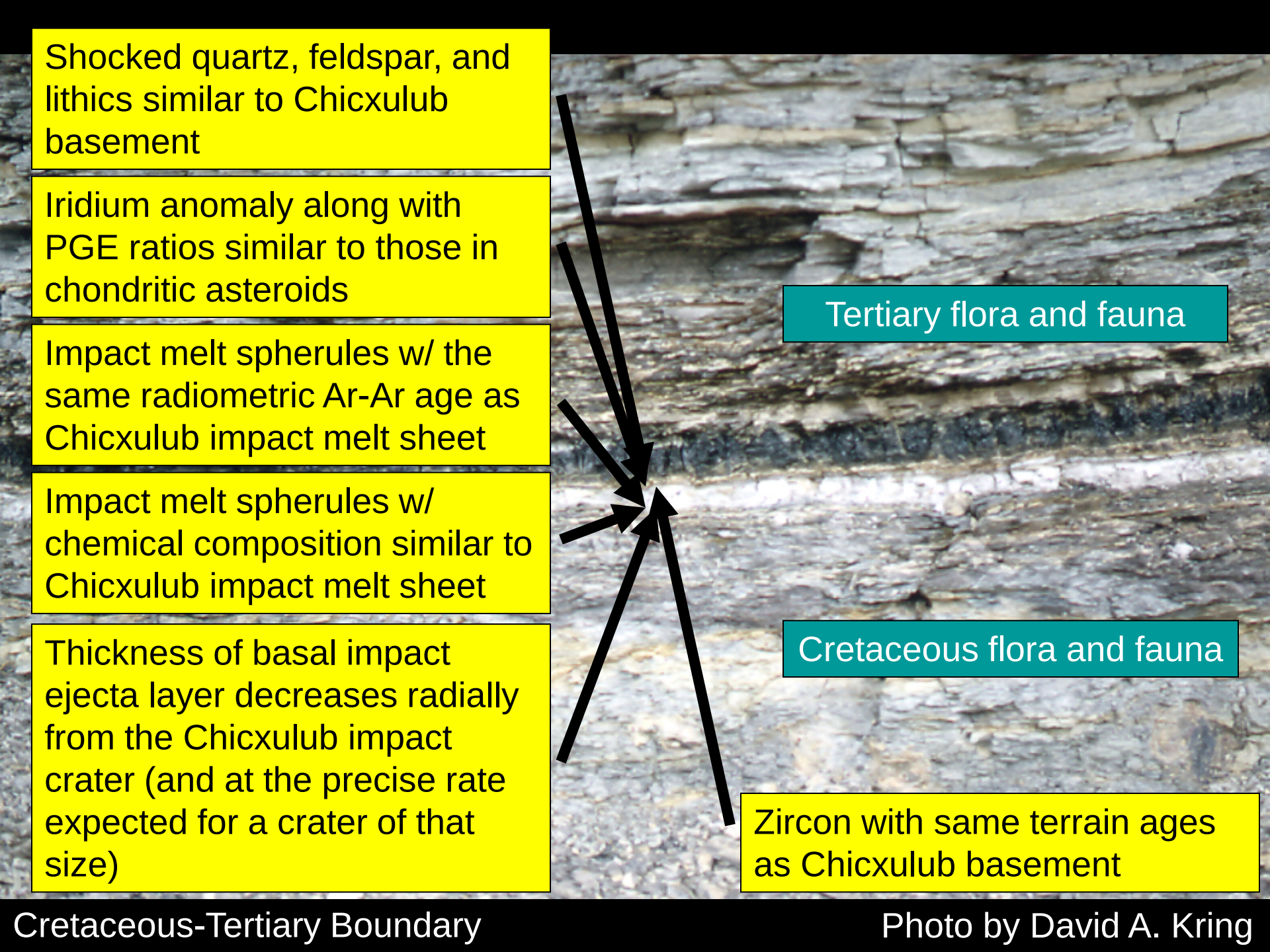
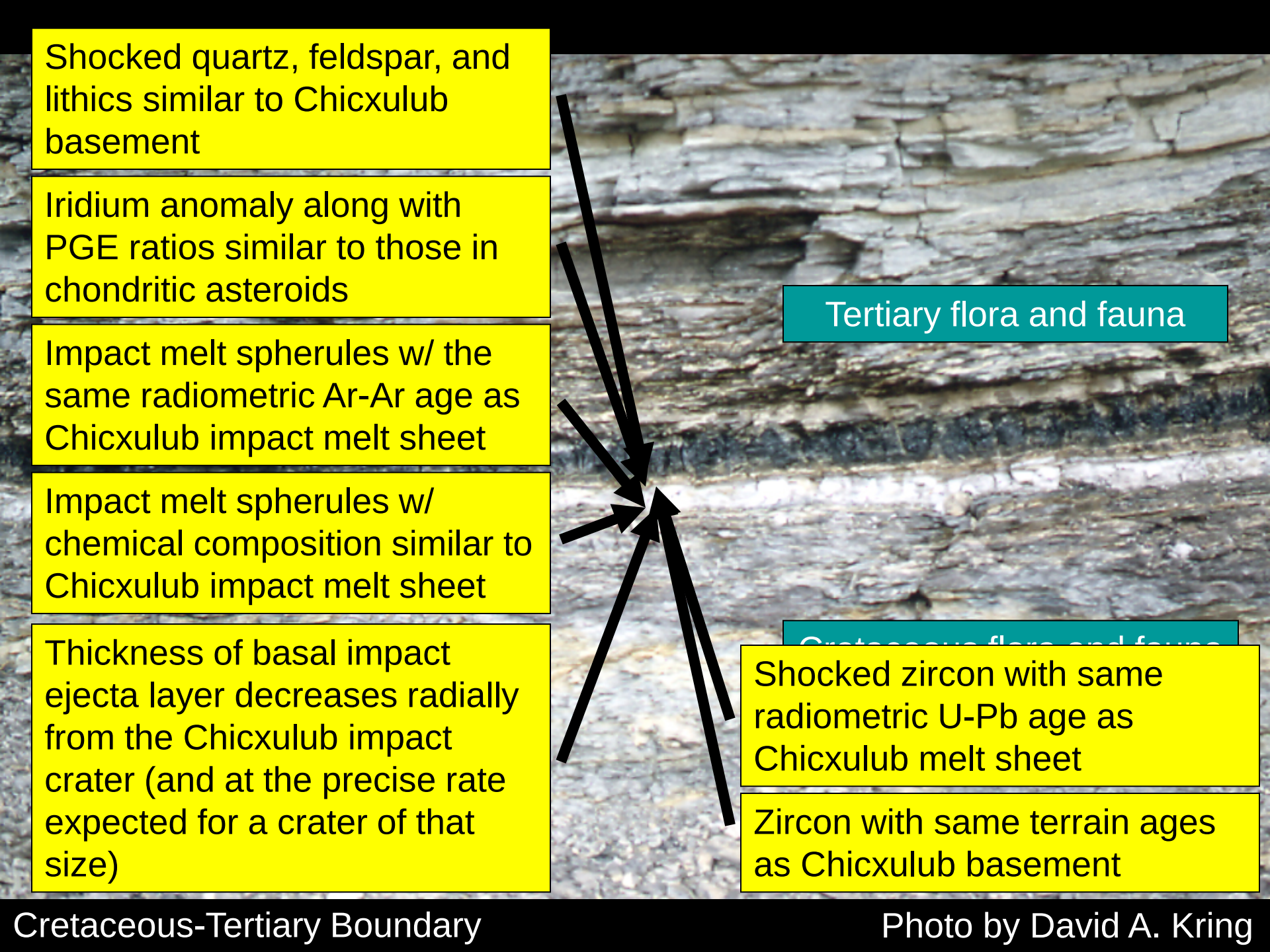

Shocked quartz, feldspar, and lithics similar to Chicxulub basement
Iridium anomaly along with PGE ratios similar to those in chondritic asteroids
Impact melt spherules w/ the same radiometric Ar-Ar age as Chicxulub impact melt sheet
Impact melt spherules w/ chemical composition similar to Chicxulub impact melt sheet
Thickness of basal impact ejecta layer decreases radially from the Chicxulub impact crater (and at the precise rate expected for a crater of that size)
Tertiary flora and fauna
Cretaceous flora and fauna
Zircon with same terrain ages as Chicxulub basement
Cretaceous-Tertiary Boundary
Photo by David A. Kring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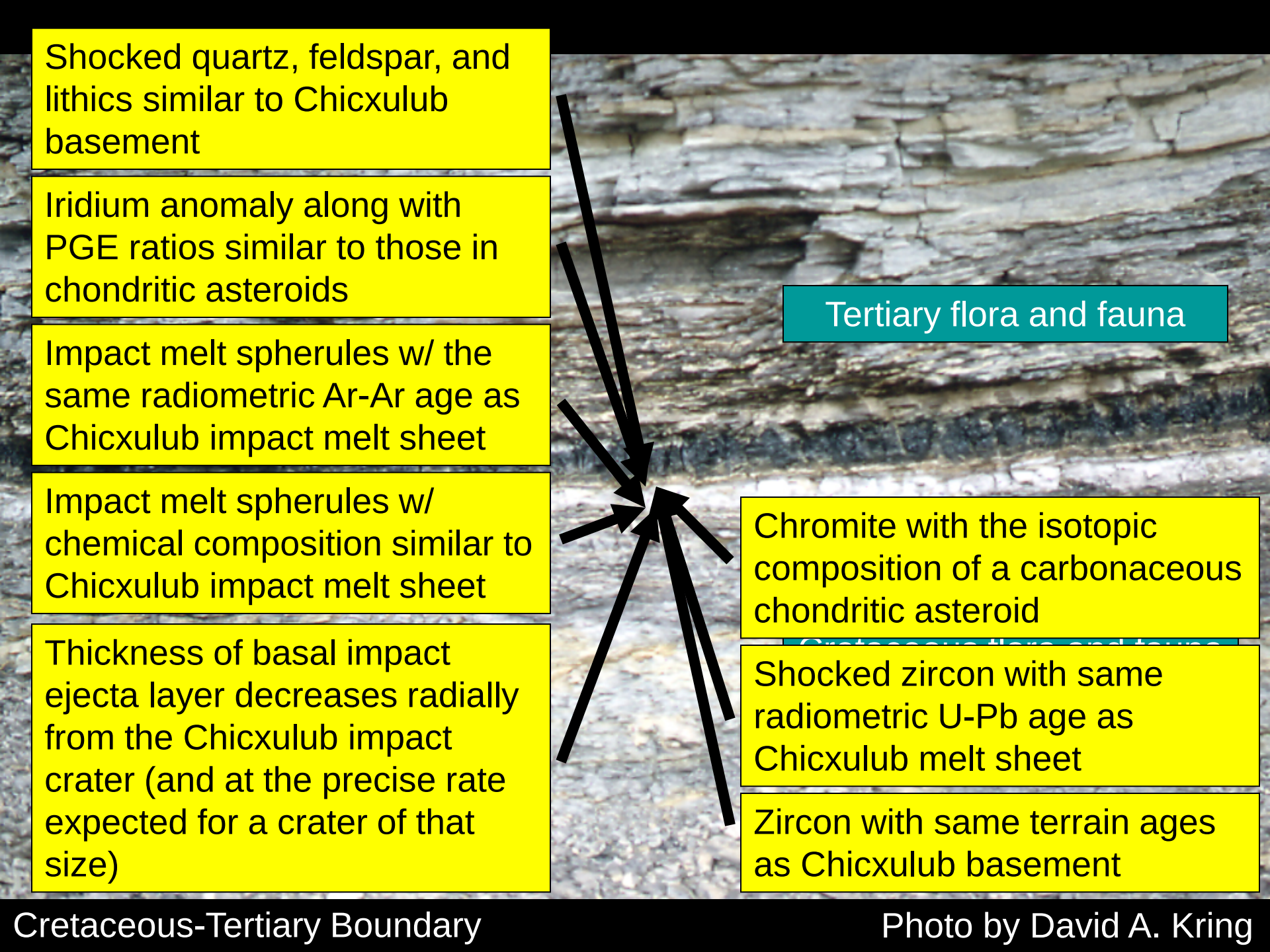
Tertiary flora and fauna
Shocked zircon with same radiometric U-Pb age as Chicxulub melt sheet
Zircon with same terrain ages as Chicxulub basement
Cretaceous-Tertiary Boundary
Photo by David A. Kring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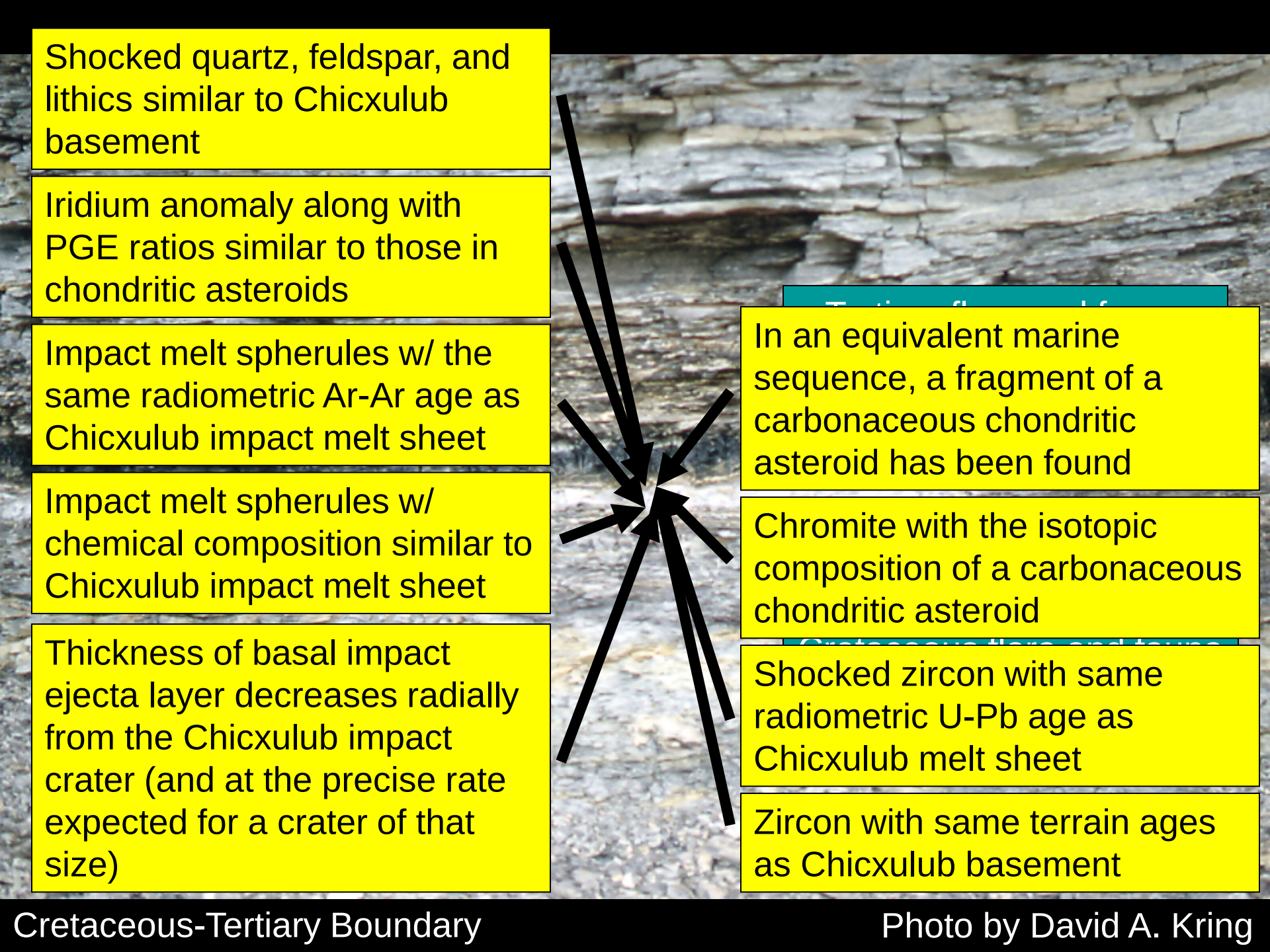
Thickness of basal impact ejecta layer decreases radially from the Chicxulub impact crater (and at the precise rate expected for a crater of that size)
Tertiary flora and fauna
Chromite with the isotopic composition of a carbonaceous chondritic asteroid
Shocked zircon with same radiometric U-Pb age as Chicxulub melt sheet
Zircon with same terrain ages as Chicxulub basement
Cretaceous-Tertiary Boundary
Photo by David A. Kring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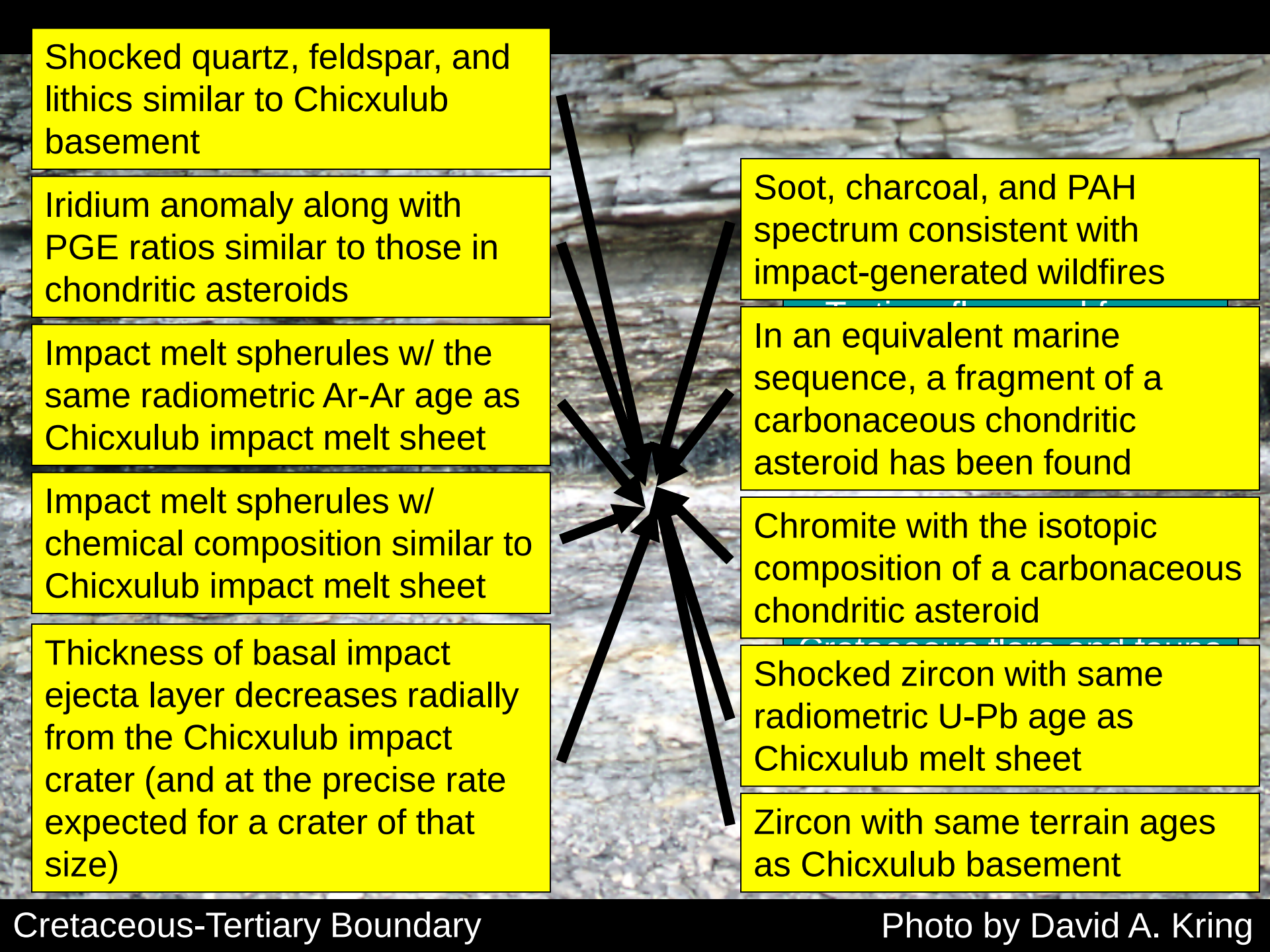
Impact melt spherules w/ chemical composition similar to Chicxulub impact melt sheet
Thickness of basal impact ejecta layer decreases radially from the Chicxulub impact crater (and at the precise rate expected for a crater of that size)
In an equivalent marine sequence, a fragment of a carbonaceous chondritic asteroid has been found
Chromite with the isotopic composition of a carbonaceous chondritic asteroid
Shocked zircon with same radiometric U-Pb age as Chicxulub melt sheet
Zircon with same terrain ages as Chicxulub basement
Cretaceous-Tertiary Boundary
Photo by David A. Kring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Thickness of basal impact ejecta layer decreases radially from the Chicxulub impact crater (and at the precise rate expected for a crater of that size)
Soot, charcoal, and PAH spectrum consistent with impact-generated wildfires
In an equivalent marine sequence, a fragment of a carbonaceous chondritic asteroid has been found
Chromite with the isotopic composition of a carbonaceous chondritic asteroid
Shocked zircon with same radiometric U-Pb age as Chicxulub melt sheet
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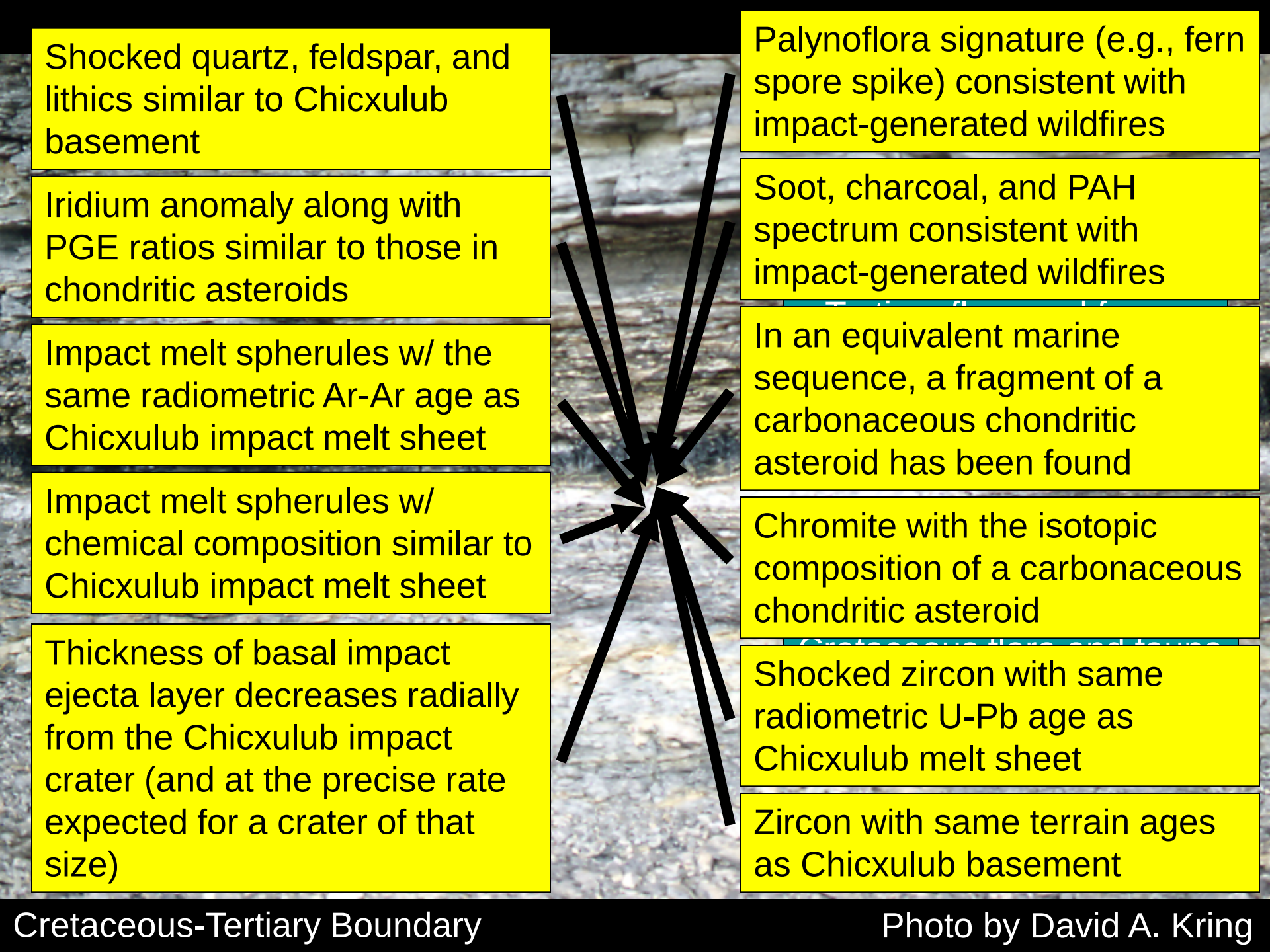
Cretaceous-Tertiary Boundary
Photo by David A. Kring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Thickness of basal impact ejecta layer decreases radially from the Chicxulub impact crater (and at the precise rate expected for a crater of that size)
Palynoflora signature (e.g., fern spore spike) consistent with impact-generated wildfires
Soot, charcoal, and PAH spectrum consistent with impact-generated wildfires
In an equivalent marine sequence, a fragment of a carbonaceous chondritic asteroid has been found
Chromite with the isotopic composition of a carbonaceous chondritic asteroid
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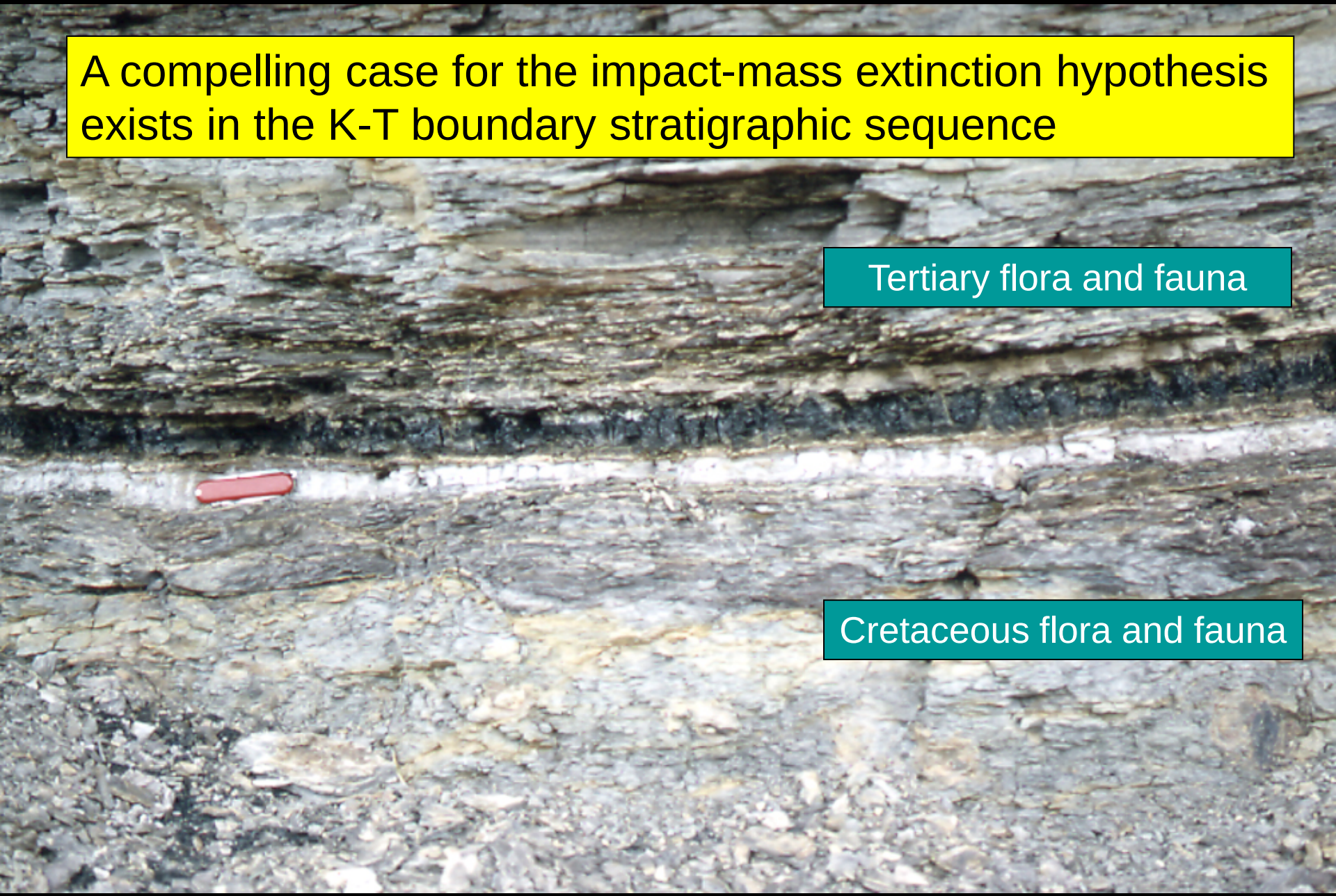

Cretaceous-Tertiary Boundary

Photo by David A. Kring