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Dinosaur Hall

There are three American museums whose dinosaur collections especially come to mind when revisiting the 19th - 20th century history of fossilized bone excavation in the western parts of the country. They are the American Museum of Natural History in New York City, the Smithsonian Museum in Washington, DC, and the Carnegie Museum of Natural History in Pittsburgh. Thank you Andrew Carnegie for making Western Pennsylvania a member of this distinguished trio.

Dinosaur Hall is at the very pinnacle of displays within our own Carnegie Museum, as well as being so worldwide. For the umpteenth time, we took visitors there during the Thanksgiving holiday. So did many other folks, because there was a crowd, in proper awe as is always the case. There is so much there, in such detail, and at such scale. It is difficult to absorb it all in just one visit, or even after many visits over a lifetime. I was reminded about how necessary is reading the books about the dinosaur hunters who collected these old bones to gain a full perspective about the millions of years-old history in them. I was reminded about how necessary it is to know the story of the bones to understand what it means for species to go extinct, leaving only these preserved bones behind. To actually be found by members of a paleontological and prescient new species.

I was reminded that extinction is not necessarily something that occurs in weeks or a few years, but maybe a thousand years. I was reminded about the five major extinctions that are known and the sixth for which we supposedly prescient Homo sapiens are the main cause right now.

Because my guests wanted to know, and we all should, here are the five known major extinctions by geologic period episode, age, and estimated percentage of species gone extinct:

- (1) Cretaceous-Tertiary, 65 million years ago, 70% extinction (asteroid impact)
- (2) Triassic-Jurassic, 202 million years ago, 76% extinction
- (3) Permian-Triassic, 250 million years ago, 96% extinction
- (4) Late Devonian, 367 million years ago, 82% extinction
- (5) Ordovician-Silurian, 438 million years ago, 85% extinction

The Earth is about 4.5 billion years old. It takes about 10 million years to recover from a great extinction. These are all numbers to cast humility on the lifetime of a human. Here are some wonderful books to request at your public Library to read with humility.

- (1) Powell, J. L., "Night Comes to the Cretaceous" (1998).
- (2) Colbert, E. H., "The Great Dinosaur Hunters and Their Discoveries" (1984).
- (3) Wallace, D. R., "The Bonehunters' Revenge" (1999).
- (4) Horner J. R. and J. Gorman, "Digging Dinosaurs" (1988).
- (5) Colbert, E. H., "Wandering Lands and Animals" (1985).
- (6) Darwin, Charles, "The Origin of Species" (1859).

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(7) Carson, Rachel, "Silent Spring" (1962).

(8) Wilson, E. O., "Half-Earth: Our Planet's Fight for Life" (2016).

(9) Kolbert, Elizabeth, "The Sixth Extinction" (2014).

Powell is the source for above data for the five extinctions. You will love the journey on which he and the other authors will take you, even as they are sobering.

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