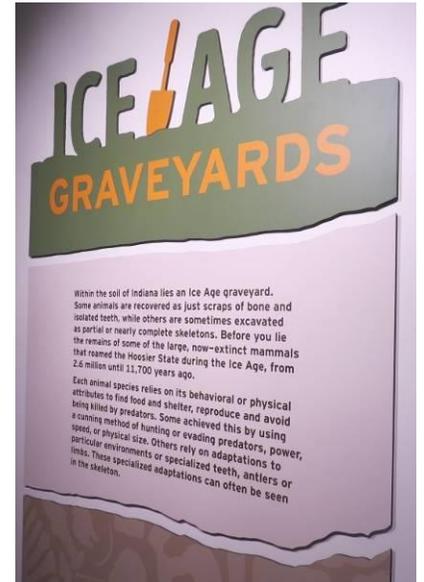


Back to the Pleistocene: The "Ice Age Graveyards" Exhibit at the Indiana State Museum Michael Hutchins

On Saturday, September 14th, 2017, I took off from Baltimore-Washington Airport and landed in Indianapolis, IN to attend the Association of Zoos and Aquariums' 2017 Annual Conference on behalf of World Safaris, the nature travel company I co-own. Upon arriving, I immediately checked into my hotel and grabbed a taxi to the Indiana State Museum on the Indiana University campus, a few minutes journey from where I was staying. As usual, I was particularly interested in seeing the paleontological exhibits. Upon arrival and a visit to the ticket booth on the first floor, I found out that the museum currently had a special exhibition of Ice Age mammals collected in Indiana titled "Ice Age Graveyards." Located on the third floor, it was the first place I went.

Sign at the entrance to the "Ice Age Graveyards" exhibit at the Indiana State Museum in Indianapolis.

The "Ice Age Graveyard" exhibit featured a number of fossil mammals, both replicas and originals, collected in the state of Indiana, along with a discussion about the history of their collection beginning as far back as 1867 when a mastodon skeleton was found and excavated. Between 1867 and 1933, seven mastadons and one woolly mammoth were exported from Indiana and mounted and displayed in other museums across the country. One of the best known and most complete specimens is exhibited in the American Museum of Natural History in New York. Since the 1960s, these fossils have contributed to our knowledge of Ice Age environments and ancient mammalian ecology and behavior.



Historic photos depicting the early collection of Ice Age mammals in Indiana were interspersed throughout the exhibit. One graphic showed the location of mastodon and mammoth specimens found throughout the state.

The first exhibit I encountered featured the flat-headed peccary (*Platygonus compressus*) and its predator, the dire wolf (*Canis dirus*). The pig-like peccary, with large canines, was one of the most common animals of this period. Likely an omnivore, this species was food for a wide variety of carnivores including Ice Age jaguars and dire wolves.



Mounted specimens of the flat-headed peccary (left) and dire wolf (right).

At the center of the relatively small exhibit, were two mounted specimens of mastadon (*Mamut americanum*) and woolly mammoth (*Mammuthus primigenius*). The mammoth specimen—a cast—was 14,800 years old, collected in nearby Kenosha County, Wisconsin and the mastadon 13,500 years-old and collected in Allen County, Indiana. The mammoth replica was selected for display because of the incompleteness of the Indiana specimens. "Fred" the mastadon was a 33-year old bull, whose skull injuries indicate that he may have been killed in mating competition with another male. His remains were excavated in 1998 on the Buesching Farm near Fort Wayne, Indiana. Both were displayed with dramatic lighting that cast shadows of their impressive skeletons against the white walls.



Mastadon (left) and mammoth (right) skeletons were displayed in close proximity to allow comparisons.

Near the mastadon and mammoth skeletons were some additional exhibits intended to illustrate the differences between the two species and between the sexes. One case showed the differences between mastadon and mammoth teeth, while the other showed the differences in size between male and female mastadon femurs, indicating substantial sexual dimorphism.



Displays showing the differences between distinctive mastadon (top left) and mammoth teeth (lower right) and between the size of male and female mastadon femurs (photo on right).

Another display case (photo below) contained and compared the differences between mammoth and mastadon tusks. The tusks were displayed in front of a photo showing a dig from which some of the remains were recovered.



Additional display cases held specimens of other Ice Age mammals, such as the giant ground sloth (*Nothrotheriops* spp.) and short-faced bear (*Arctodus simus*). The ground sloth was a large, lumbering herbivore that likely defended itself with its sharp fore-claws, whereas the short-faced bear was a carnivore that had long legs and was probably cursorial, or adapted for running down its prey, such as bison, over long distances.



Mounted specimens showed the claw and femur of a giant ground sloth and the skeleton of a short-faced bear.

One of my favorite displays in the exhibit was that of the saber toothed cat (*Smilodon fatalis*). As the scientific name implies this was a formidable predator that likely killed through a downward slashing motion of its long canine teeth. The specimen was mounted with its mouth wide open to illustrate the tremendous size of those impressive canines. I couldn't imagine those knife-like teeth burying themselves in my own throat or neck, although I suspect the thought may have given some children nightmares. That being said, even carnivores have to make a living. It is after all, the eternal circle of life.

Mounted specimen of the sabertooth cat, a large felid from the Pleistocene of North America.

As graphics in the exhibit make clear, there still is no definitive answer for why the large mammals of the Pleistocene disappeared from the North American landscape some 11,000-12,000 years ago. Explanations range from disease to a meteor strike, to rapid ecological change (climate change) to over-hunting by humans. More likely, it was a combination of all these factors that led to their demise. Nonetheless, these creatures still



hold a fascination for many of us. They also remind us about the value of our contemporary wildlife and that we should make every effort to conserve the incredible biological diversity that they represent.

I greatly enjoyed my time at the Indiana State Museum and would recommend visiting whenever you are in the area. Admission was \$14.95 for adults, \$13.95 for seniors, and \$9.95 for children. Children under 3 can enter for free and college students are \$12.95 with valid student ID. The museum is open every day, except some holidays, from Monday-Saturday from 10:00 am-5:00 pm and on Sundays from 11:00 am-5:00 pm.

(All photographs by Michael Hutchins).