

Meet Our Scientist Briana Pobiner, Dietary Detective.

Briana Pobiner: 00:08 Meat-eating may have led to a lot of what makes us human today. My name is Briana Pobiner, and I'm a paleoanthropologist at the Smithsonian's National Museum of Natural History. My research focuses on the first major dietary shift in human evolutionary history, which is eating meat from large animals. It's sort of like fossil forensics. I go into the field in Africa. I collect the remains from kills of lions or other big carnivores. I can look and see what meat and bone marrow was left from these kills. And then, I look at the patterns of tooth marking and bone damage to see if I can identify what kind of carnivore made that kill. (00:45) I also use these methods when I study fossils to try to identify who got there first. Was it the carnivores, or was it the early humans? I've found in some of the fossils that I've studied that early humans got to these carcasses first and were able to eat the best parts of the animals. Sometimes carnivores got there first and early humans probably only got scraps. Some of the most exciting things I've experienced in my research is finding and holding a bone that was butchered and eaten by an early human, maybe a million or a million and a half years ago. It's a really eerie feeling, but it's really cool to think that I'm the first person to actually see this bone that is direct evidence of human behavior. It's like sort of reaching through time and getting a glimpse of what human life was like in the past. (01:36) One of the important things about my research and studying early human diet is that it has really big implications for a lot of other major changes that happen in human evolutionary history. The evolution of meat-eating has been linked to an increase in brain size. It's been linked to an increase in home range size and maybe the expansion out of Africa. It's likely that competing with big carnivores, you needed sophisticated interaction, communication, and other social skills that are also another hallmark of being human. (02:06) I grew up just outside of New York City. Truth be told, I wasn't particularly interested in science when I was a kid. It wasn't until I got to college and had a fantastic

anthropology class with a wonderful professor that I really got hooked on the idea of studying human evolution and trying to understand more about where we came from as a species. Then when I went to the field and started finding fossils, I really fell in love with the travel, with the adventure, with the discovery, and everything that comes along with being a field paleoanthropologist. (02:38)

I think anthropology is cool because, in some ways, it's like trying to put pieces of a puzzle together about the past. You don't have all the pieces, but the more we learn, the more we get the tools to help us try to solve some of these mysteries of the past.

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