the science natural history



Transcript

Darwin & Dinosaurs: Ava... A new species of Ceratopsian Dinosaur

Mike Triebold: This ceratopsian is brand new to science. It doesn't have a name. We nicknamed it Ava because at first we thought it was an Avaceraptops, but when we started studying the bones carefully and in detail, we realized it's not. It's something different and new. One of the things that's peculiar about it is that the horns on the brow come almost to a point where they touch each other. In life, they would have virtually touched and there's no nose horn like Triceratops. She has none whatsoever. Its body is almost identical to triceratops, but the skull has some significant differences. It's also about ten million years older than Triceratops.

Jeremy Stalker: When I was like eight years old and I thought about finding dinosaurs in the field, I thought you went and you found the whole dinosaur in all its pieces laid in the rock, but that's not really the case is it?

Mike Triebold: Not normally. It does happen, but it's a very rare occurrence. Usually when you find a dinosaur, most of the time, probably eighty percent of the time, you just find a few parts of it and that's what scientists of historical use to describe new species. If they found a bone that had certain characters that were different from other animals of its type, they would describe it as a new species.

> In this particular case, it's very much like what you thought as a kid. It wasn't together in order, but we did have about eighty five percent of the bones of this animal. Even though it's a new species, we also all of a sudden know a lot about what it look like and how it lived.

The percentage that wasn't preserved, we were able to reproduce using modern technology. For example, the left jaw was preserved but we only had one jaw. We had the predentary which is the bone on the front tip of the jaw there and the left, but we didn't have a right jaw. What we did was we laser scanned the jaw in the computer, we made a mirror image of it and then we printed the right jaw.

We did the same thing with some of the ribs. We had virtually the entire series of ribs from the left side of the animal, but we only had about twenty percent of the right side. We scan all the left ribs, we mirror imaged them in the computer and then we printed out the missing right ribs. Those technologies have enabled us to not only recreate the animal, but more accurately than ever possible in the past.

Maria Hane:

MOSH is excited that this is the first time that this dinosaur species has been on display in its full expression as a full cast skeleton anywhere in the United States or in the world. These are the kinds of things that MOSH really strives to position itself as a resource for this kind of information, this kind of opportunity for this region to be able to have access to something as exciting as this.