



SCIENCE & TECHNOLOGY

Scientists Discover How Some Dinosaurs Grew So Big

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Scientists studying the remains of ancient creatures say that large dinosaurs did not grow at the same rate.

Some dinosaurs grew slowly and **steadily**. Others experienced a growth spurt as they neared adulthood. A “growth spurt” is when something or someone grows very quickly. For example, children usually have a growth spurt between the ages of 12 and 18.

The same appears to be true for some dinosaurs!

The research appeared recently in the Proceedings of the Royal Society B publication.

To reach their findings, scientists cut through the **fossilized** bones of dinosaurs. They examined the yearly growth rings of the bones from 11 kinds of theropods. Theropods are a group of dinosaurs that mainly walked on two legs and include big meat-eating dinosaurs, like tyrannosaurus rex, commonly known as T. rex.

Reuters news agency reports that this new study provides a look into the lives of some of the most fearsome hunters ever to walk the Earth.

The research team looked at fossils from museums in the United States, Canada, China, and Argentina. They were able to cut into the fossilized bones of one of the world’s most famous T. rexes, known as Sue. Sue is housed at the Field Museum in Chicago.

The researchers used machines to cut into Sue’s largest leg bones. These bones showed that the T. rex and its relatives - known as tyrannosaurs - have a period of extreme growth during the years before adulthood. It also shows that they reached full adult size by around age 20.

Sue is about 13 meters tall. She is believed to have lived to about 33 years. She lived in an area that is modern day South Dakota, a state in the north-central part of the United States.

Other groups of large theropods had more steady rates of growth over a longer period of time. Examples of these include two kinds of North American dinosaurs -- Allosaurus and Acrocanthosaurus.

Another dinosaur from Antarctica, Cryolophosaurus and a dinosaur recently discovered in Argentina also grew slowly.

The Argentinian dinosaur has not yet been named, but it was as big as a T. rex. This dinosaur did not reach its full adult size until it reached about 40 years of age. It is believed to have lived to about age 50.

Big theropods share the same basic body design. They walked on two legs and had large skulls and strong jaws. And of course, they had threatening teeth.

The lead researcher on the study is Tom Cullen. He is a **paleontologist** with the North Carolina Museum of Natural Sciences and North Carolina State University.

He said that before this study, “it was known that T. rex grew very quickly, but it was not clear if all theropod dinosaurs reached **gigantic** size in the same way,” or if there were many ways they grew so big.

I'm Anna Matteo.

Will Dunham reported this story for Reuters news agency. Anna Matteo adapted it for VOA Learning English. Mario Ritter, Jr. was the editor.

Words in This Story

steadily *-adv.* not changing very much over time

fossilized *-adj.* tissue that has changed into a mineral underground over time

paleontologist *-n.* a scientist who studies fossils of animals that lived a very long time ago

gigantic *-adj.* extremely large
