

Scientists find remains of huge ancient herbivore

November 22 2018, by Frank Jordans



Artistic reconstruction of Lisowicia bojani, front view. Credit: Karolina Suchan-Okulska

A giant, plant-eating creature with a beak-like mouth and reptilian features may have roamed the Earth during the late Triassic period more than 200 million years ago, scientists said Thursday.

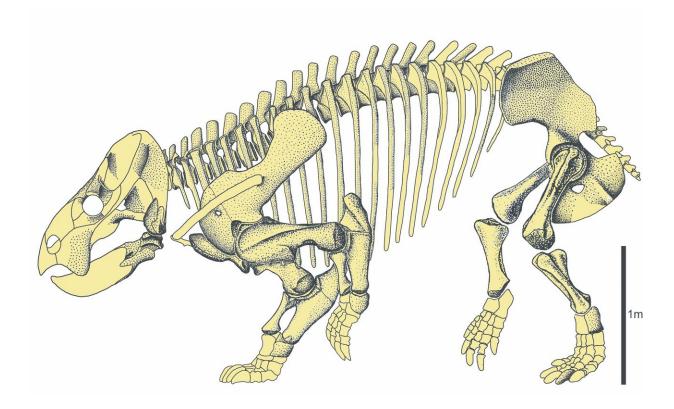


In a paper published Thursday by the journal *Science*, Polish researchers claim their find overturns the notion that the only giant plant-eaters at the time were dinosaurs.

The elephant-sized creature, known as Lisowicia bojani after a village in southern Poland where its remains were found, belonged to the same evolutionary branch as mammals.

Similar fossils from so-called dicynodonts have been found elsewhere, but they were dated to be from an earlier period, before a series of natural disasters wiped out most species on Earth.

"We used to think that after the end-Permian extinction, mammals and their relatives retreated to the shadows while dinosaurs rose up and grew to huge sizes," said Grzegorz Niedzwiedzki, a paleontologist at Uppsala University in Sweden who co-authored the paper.





During the Triassic period (252-201 million years ago) mammal-like reptiles called therapsids co-existed with ancestors to dinosaurs, crocodiles, mammals, pterosaurs, turtles, frogs, and lizards. One group of therapsids are the dicynodonts. Researchers at Uppsala University in Sweden, together with colleagues in Poland, have discovered fossils from a new genus of gigantic dicynodont. The new species *Lisowicia bojani* is described in the journal <u>Science</u>. Credit: Tomasz Sulej

The discovery of giant dicynodonts living at the same time as sauropods—a branch of the dinosaur family that later produced the iconic long-necked diplodocus—suggests <u>environmental factors</u> in the late Triassic period may have driven the evolution of gigantism, the researchers said.





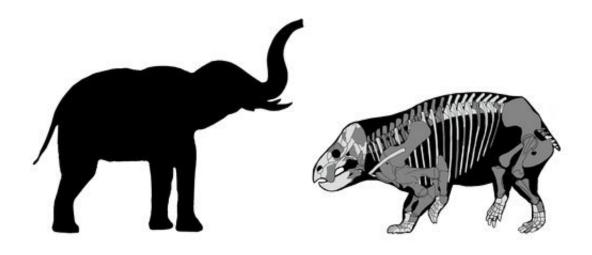
The undated photo provided by Grzegorz Niedzwiedzki shows people uncovering a fossile of a plant-eating creature with a beak-like mouth and reptilian features in Lisowicia, Poland. The creature, known as Lisowicia bojani after the village in southern Poland where it was found, belonged to the same evolutionary branch as mammals. (Courtesy of Grzegorz Niedzwiedzki via AP)

Christian Kammerer, a dicynodont specialist at the North Carolina Museum of Natural Sciences not involved in the find, said the size of Lisowicia was "startling."

"Large dicynodonts have been known before in both the Permian and the Triassic, but never at this scale," he said.



Kammerer said that while dicynodonts and <u>dinosaurs</u> existed at the same time, there's no evidence yet that they lived in the same habitats. He also questioned the study's conclusions about Lisowicia's posture



The artist rendering provided by Grzegorz Niedzwiedzki shows an elephant as size comparison to giant, plant-eating creature with a beak-like mouth and reptilian features may have roamed the Earth during the late Triassic period more than 200 million years ago. The creature, known as Lisowicia bojani after a village in southern Poland where it was found, belonged to the same evolutionary branch as mammals. (Courtesy of Grzegorz Niedzwiedzki via AP)

"However, overall I think this is a very intriguing and important paper, and shows us that there is a still a lot left to learn about early mammal relatives in the Triassic," said Kammerer.





The undated photo provided by Grzegorz Niedzwiedzki shows people uncovering a fossile of a plant-eating creature with a beak-like mouth and reptilian features in Lisowicia, Poland. The creature, known as Lisowicia bojani after the village in southern Poland where it was found, belonged to the same evolutionary branch as mammals. (Courtesy of Grzegorz Niedzwiedzki via AP)





Limb bones of dicynodont, Lisowice locality, Silesia, Poland Credit: Grzegorz Niedzwiedzki

More information: T. Sulej el al., "An elephant-sized Late Triassic synapsid with erect limbs," *Science* (2018). <u>science.sciencemag.org/lookup/ ... 1126/science.aal4853</u>

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