

Newly found dinosaur is long-nosed cousin of *Tyrannosaurus rex*

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The image shows two *Qianzhousaurus* individuals hunting. The one in the foreground is chasing a small feathered dinosaur called *Nankangia* and the one in the background is eating a lizard. Fossils of these three species are known from the ca. 72-66 million-year-old site in Ganzhou, China, where *Qianzhousaurus* was found. Credit: Chuang Zhao

Scientists have discovered a new species of long-snouted tyrannosaur, nicknamed Pinocchio rex, which stalked the Earth more than 66 million years ago.

Researchers say the animal, which belonged to the same dinosaur family as *Tyrannosaurus rex*, was a fearsome carnivore that lived in Asia during the late Cretaceous period.

The newly found ancient predator looked very different from most other tyrannosaurs. It had an elongated skull and long, narrow teeth compared with the deeper, more powerful jaws and thick teeth of a conventional *T. rex*.

Palaeontologists were uncertain of the existence of long-snouted tyrannosaurs until the remains of the dinosaur – named *Qianzhousaurus sinensis* – were unearthed in southern China.

Until now, only two fossilised tyrannosaurs with elongated heads had been found, both of which were juveniles. It was unclear whether these were a new class of dinosaur or if they were at an early growth stage, and might have gone on to develop deeper, more robust skulls.

The new specimen, described by scientists from the Chinese Academy of Geological Sciences and the University of Edinburgh, is of an animal nearing adulthood. It was found largely intact and remarkably well preserved, thereby confirming the existence of tyrannosaur species with long snouts.

Experts say *Qianzhousaurus sinensis* lived alongside deep-snouted tyrannosaurs but would not have been in direct competition with them, as they were larger and probably hunted different prey.



The image shows the skull of *Qianzhousaurus* (upper jaw in left lateral view and lower jaw in reversed right lateral view). Credit: Junchang Lu

Following the find, researchers have created a new branch of the tyrannosaur family for specimens with very long snouts, and they expect more dinosaurs to be added to the group as excavations in Asia continue to identify [new species](#).

Qianzhousaurus sinensis lived until around 66 million years ago when all of the dinosaurs became extinct, likely as the result of a deadly asteroid impact.

Findings from the study, funded by the Natural Science Foundation of China and the National Science Foundation, are published in the journal *Nature Communications*.

Dr Steve Brusatte, of the University of Edinburgh's School of GeoSciences, and one of the authors of the study, said: "This is a different breed of tyrannosaur. It has the familiar toothy grin of *T. rex*,

but its snout was much longer and it had a row of horns on its nose. It might have looked a little comical, but it would have been as deadly as any other tyrannosaur, and maybe even a little faster and stealthier."

Professor Junchang Lü, of the Institute of Geology, Chinese Academy of Geological Sciences, said: "The new discovery is very important. Along with *Alioramus* from Mongolia, it shows that the long-snouted tyrannosaurids were widely distributed in Asia. Although we are only starting to learn about them, the long-snouted tyrannosaurs were apparently one of the main groups of predatory dinosaurs in Asia."

Provided by University of Edinburgh

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