

Perfectly preserved dinosaur embryo was preparing to hatch like a bird

December 26 2021, by Issam Ahmed



This undated photo courtesy of Lida Xing and the University of Birmingham shows the oviraptorosaur embryo 'Baby Yingliang' found in the Ganzhou, Jiangxi Province, southern China.

Scientists on Tuesday announced the discovery of an exquisitely preserved dinosaur embryo from at least 66 million years ago that was preparing to hatch from its egg just like a chicken.

The fossil was discovered in Ganzhou, southern China and belonged to a toothless theropod dinosaur, or oviraptorosaur, which the researchers dubbed "Baby Yingliang."

"It is one of the best dinosaur [embryos](#) ever found in history," University of Birmingham researcher Fion Waisum Ma, who co-authored a paper in the journal *iScience*, told AFP.

Ma and colleagues found Baby Yingliang's [head](#) lay below its body, with the feet on either side and back curled—a posture that was previously unseen in dinosaurs, but similar to modern [birds](#).

In birds, the behavior is controlled by the central nervous system and called "tucking." Chicks preparing to hatch tuck their head under their right wing in order to stabilize the head while they crack the shell with their beak.

Embryos that fail to tuck have a higher chance of death from an unsuccessful hatching.

"This indicates that such behavior in [modern birds](#) first evolved and originated among their dinosaur ancestors," said Ma.

An alternative to tucking might have been something closer to what is seen in modern crocodiles, which instead assume a sitting posture with the head bending upon the chest up to hatching.



This undated illustration courtesy of Lida Xing and University of Birmingham shows a rendition of a close-to-hatching oviraptorosaur dinosaur embryo, which is based on the new specimen 'Baby Yingliang' found in the Ganzhou, Jiangxi Province, southern China.

Forgotten in storage

Oviraptorosaurs, which means "egg thief lizards," were feathered dinosaurs that lived in what is now Asia and North America during the Late Cretaceous period.

They had variable beak shapes and diets, and ranged in size from modern turkeys at the lower end to massive Gigantoraptors, that were eight meters (26 feet) long.

Baby Yingliang measures around 27 centimeters (10.6 inches) long from head to tail, and lies inside a 17 centimeter-long egg at the Yingliang Stone Nature History Museum.

Researchers believe the creature is between 72 and 66 million years old, and was probably preserved by a sudden mudslide that buried the egg, protecting it from scavengers for eons.

It would have grown two to three meters long if it had lived to be an adult, and would have likely fed on plants.

The specimen was one of several egg fossils that were forgotten in storage for decades.

The research team suspected they might contain unborn [dinosaurs](#), and scraped off part of Baby Yingliang's egg shell to uncover the embryo hidden within.

"This dinosaur embryo inside its egg is one of the most beautiful fossils I have ever seen," said Professor Steve Brusatte of the University of Edinburgh, part of the research team, in a statement.

"This little prenatal dinosaur looks just like a baby bird curled in its egg,

which is yet more evidence that many features characteristic of today's birds first evolved in their dinosaur ancestors."

The team hopes to study Baby Yingliang in greater detail using advanced scanning techniques to image its full skeleton, including its skull bones, because part of the body is still covered by rock.

More information: Waisum Ma et al, An exquisitely preserved in-ovo theropod dinosaur embryo sheds light on avian-like prehatching postures, *iScience* (2021). DOI: [10.1016/j.isci.2021.103516](https://doi.org/10.1016/j.isci.2021.103516).
[www.cell.com/iscience/fulltext ... 2589-0042\(21\)01487-5](https://www.cell.com/iscience/fulltext/S2589-0042(21)01487-5)

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