

## Dinosaur herd buried in Noah's Flood in Inner Mongolia, China

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An international team of scientists have uncovered graphic evidence of the deadly terror unleashed on a herd of dinosaurs as they were buried under sediment by the rising waters of Noah's Flood in western Inner Mongolia (figure 1).<sup>1</sup>

Dinosaur bones were first discovered at the site, located at the base of a small hill in the Gobi Desert, in 1978 by a Chinese geologist. After about 20 years, a team of Chinese and Japanese scientists recovered the first skeletons, which they named *Sinornithomimus*, meaning "Chinese bird mimic".

A few years later in 2001, the international team excavated the remains of more than 25 dinosaurs, creating a large quarry in the process as they followed the skeletons into the base of the hill.

### Remarkable excavation

As the team carefully mapped the location of the bones and strata that contained them (figure 2), it became clear that the dinosaurs were all within the same layer of mudstone (i.e. the same bedding plane), generally facing the same direction and remarkably well preserved.<sup>2</sup>

Most of the dinosaurs were buried in a life-like crouching posture and, even more surprisingly, the limbs of the dinosaurs were plunging down into the underlying mud as deep as 40 cm (figure 3).<sup>3</sup> Their hind legs were often still bent indicating that they were struggling to escape. Two of the skeletons were found one on top of the other where they apparently fell. This fossil find captures in stone how the dinosaurs perished when they became mired in the mud.

The thick layer of mud in which the animals were trapped displayed bedding that was twisted and convoluted,<sup>4</sup> indicating that the sediment was only recently deposited from flowing water and still soft when it was disturbed. There was an absence of bioturbation (such as burrowing by worms or crustaceans) in the underlying mud,<sup>5</sup> which also indicated that the mud was only recently deposited.

Not only was the thick underlayer of sediment recently deposited, but the

overlying sediments were deposited soon after the animals were trapped, burying the animals before their soft parts had a chance to rot away. Nearly all the fossil bones were surrounded by a drab, blue-gray halo indicating how far the soft tissue extended (figure 3), and that the carcasses had decomposed after being buried, not before.<sup>3</sup> In addition, gastroliths (stomach stones) were found in the fossilized ribcages of some animals, as well as carbonized stomach contents (figure 3).<sup>6</sup> So quickly were the animals buried that the delicate bones in the eye (sclerotic rings) of some animals were preserved.<sup>6</sup> The team interpreted the site as a "catastrophic miring of an immature herd".<sup>3</sup>

### Noah's Flood?

When I read of such a large herd of animals being trapped in thick mud that was only recently deposited and then rapidly buried by more sediment, I immediately think of Noah's Flood. The fossil evidence is exactly the sort of thing that you would expect as a result of the global catastrophe described in the Bible.

"The waters rose and increased greatly on the earth, and the ark floated on the surface of the water. They rose greatly on the earth, and all the high mountains under the entire heavens were covered. The waters rose and covered the mountains to a depth of more than twenty feet. Every living thing that moved on the earth perished—birds, livestock, wild animals, all the creatures that swarm over the earth, and all mankind. Everything on dry land that had the breath of life in its nostrils died. Every living thing on the face of the earth was wiped out; men and animals and the creatures that move along the ground and the birds of the air were wiped from the earth. Only Noah was left, and those with him in the ark. The waters flooded the earth for a hundred and fifty days" (Genesis 7:18–24).

However, Noah's Flood is not an explanation that came to the minds of the paleontologists who excavated

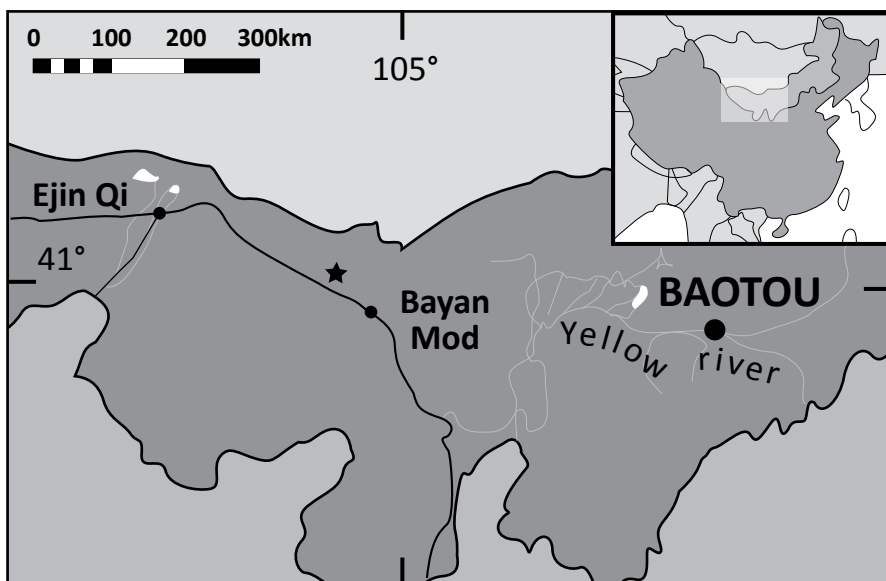
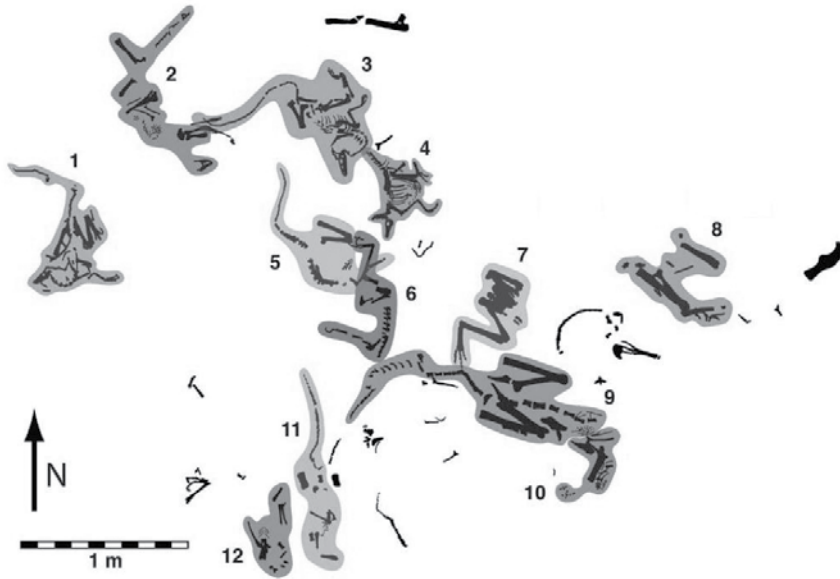


Figure 1. Star locates fossil site in Inner Mongolia, China. (From Varricchio *et al.*, ref. 2).



**Figure 2.** Map of some dinosaur remains at the site in Inner Mongolia. Note the skeletal parts have generally remained together, indicating that the animals were buried before their remains disintegrated. (From Varricchio *et al.*, ref. 2).

the dinosaurs in Inner Mongolia. Consequently, they struggled to explain what they found. Their main problem was that they were looking for a modern environment that corresponds with the evidence, but Noah's Flood was a unique event.<sup>7</sup> There has been no geological disaster in the last 4,500 years that has come anywhere close to what happened during the Flood.

### A herd of juveniles

Lead author, David Varricchio, assistant professor of paleontology at Montana State University, USA, indicated his surprise at what the team uncovered and alluded to their inability to explain it with a modern environment. "Finding a mired herd is exceedingly rare among living animals", he said.

One problem that the paleontologists encountered is that according to uniformitarianism, the fossil layers preserve a living environment that existed at that time. Therefore, the team was surprised that the dinosaurs consisted only of juveniles without any adults or hatchlings present. However, that is perfectly understandable in the Flood catastrophe when animals were fleeing. You would expect the hatchlings to have already perished and

the adults to have fled and abandoned the youngsters.

In scientific circles these sorts of anomalies are never reported as a problem. Rather, the paleontologists reported this unexpected result as a "new discovery". They said it was evidence of "distinctive dinosaur sociality" where the immature dinosaurs were left to fend for themselves in juvenile herds, while the mature adults were occupied elsewhere with parental care of eggs and hatchlings. What an amazing story.

### All that mud

Another problem for the team was the thickness of the mud in which the dinosaurs were trapped. They suggested the area was a low energy lake environment, which is the standard interpretation that uniformitarians invoke to explain muddy sediments.

"The lamination and very thin beds of the intervening unit represent slow deposition under quiet, low-energy conditions and an absence of significant invertebrate or vertebrate bioturbation."<sup>5</sup>

However, recent laboratory experiments have shown that such an automatic interpretation is almost

certainly incorrect because mud readily deposits from flowing water.<sup>8</sup>

In order to account for the depth of mud in an area where the animals could be trapped, the team claimed the water level of the lake was lowering as a result of drought. That could account for the mud depth in a limited region close to the shore. But it is hard to imagine how, under normal conditions, so many animals could have become trapped together so suddenly in a small area of mud at the edge of a lake.

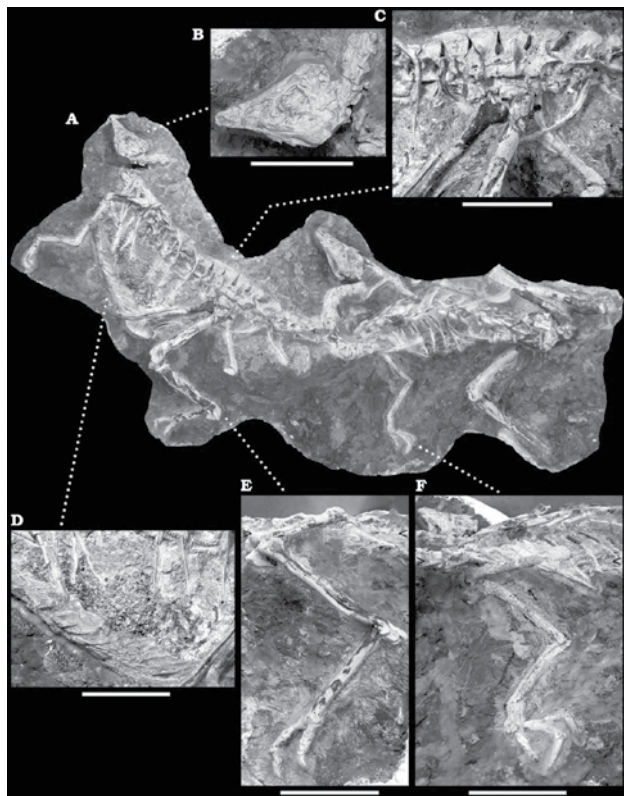
It is also hard to account for the absence of bioturbation in the mud. If you say that worms and crustaceans had not colonized the sediment because the mud had only been recently deposited, then you would have to explain what sort of process would deposit half a metre of mud so quickly. And, how could such a thick deposit have been laid down at the edge of a lake? The authors opted to say that the unbioturbated laminae suggested the mud was situated in deeper water. But deeper water would help the animals escape because water would help to support their body weight.

Another problem is that the team found mudcracks on the mud, which they also interpreted as indicators of drought. Mudcracks form when mud emerges from the water and has dried for a day or so. How could the mudcracks form on the mud surface if it was in deeper water?

This array of evidence that conflicted with their expectations puzzled the team, and they once again presented the results as an "exceptional" discovery. However, the thick mud deposit, rapid sedimentation and catastrophic entrapment of the animals are easily explained by the Flood catastrophe. And mud does not need to be exposed above water for mud cracks to form. Shrinkage cracks will form *in situ* once the overlying sediments have been deposited and the water within the mud is expelled and the mud contracts.<sup>9</sup>

### A desert?

These dinosaur fossils were found in the Cretaceous sediments of Inner Mongolia that were interpreted as



**Figure 3.** Fossil skeletons 3 and 4 (see figure 2) recovered from the site (from Varricchio *et al.*, ref. 2). Note the grey halo surrounding all the bones, indicating the skeletons were buried with the soft parts in tact. **A:** Plan view of the two skeletons. Note how they overlap. **B:** Snout and unusual neck curvature likely indicating death throes. **C:** Pelvis almost all preserved. **D:** Gastrolith (stomach stone) mass and carbonized stomach contents within rib cage indicating rapid burial. **E:** Cross-section of rear leg mired deep in mud and in bent position and **F:** cross section of foreleg deep in the mud, both indicating catastrophic entrapment. White scale bars are 10 cm.

being deposited on the land. More specifically, they were found in the Ulansuhai Formation of the Upper Cretaceous, which is interpreted as being a desert environment.

“Through this period the region experienced an increase in overall aridity and a shift from lacustrine [lake] and fluvial [river] Lower Cretaceous facies [rocks] to predominantly aeolian [desert] dune and associated interdune facies in the Upper Cretaceous.”<sup>10</sup>

What were these herds of dinosaurs doing in a desert? Where did they get the food they needed? How was such a large herd trapped in mud so quickly in a desert? And how were they buried so quickly in a desert before the soft flesh had time to

rot away and before the skeletons had disintegrated? The fact that sediment was able to accumulate to such a depth over the animals (now at the base of a small hill), indicates that the depth of the water was *rising* on the continent to provide the necessary accommodation, not falling.

So, it was not a desert. Uniformitarian geologists invoke a desert interpretation in an attempt to explain the large thickness of the sandstone strata and the huge sand dunes within the beds. They say it was a desert to hold onto their uniformitarian philosophy that it was like a modern environment, and thus try to avoid acknowledging the huge volume of water that must have been necessary, as indicated by the obvious signs of catastrophe within

the sand. So they are prepared to propose an explanation where lakes and rivers turn into deserts full of dinosaur herds that become trapped in thick mud and are buried quickly. One wrong interpretation leads to another.

### Take off the blinkers

Blinkers change the way a horse sees the world, and the uniformitarian paradigm has a similar effect on scientists. Even though they carefully excavate and document the fossil dinosaurs buried around the world, the philosophy of uniformitarianism biases the way they look at the evidence, stops them exploring all the options, and controls the sort of explanations they promote.

Here in Inner Mongolia in the middle of Asia, the historical reality of Noah’s Flood explains the new dinosaur finds elegantly. The herd of dinosaurs was a casualty of the enormous watery catastrophe that engulfed the region during the Flood. They were overwhelmed during the first half of the catastrophe as the waters were rising on the earth, while air-breathing, land-dwelling animals were still alive. Sediment continued to accumulate on the continent during this Inundatory stage as the waters continued to rise. Then, when the waters receded from the continents they eroded some of the overlying material, shaping the landscape and leaving occasional erosional remnants, such as the small hill where the geologists were able to excavate this dinosaur graveyard.

### References

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2. Varricchio, D.J., Sereno, P.C., Xijin, Z., Lin, T., Wilson, J.A. and Lyon, G.H., Mud-trapped herd captures evidence of distinctive dinosaur sociality, *Acta Palaeontol. Pol.* **53**(4):567–578, 2008.
3. Varricchio *et al.*, ref. 2, p. 570.
4. Varricchio *et al.*, ref. 2, p. 569.
5. Varricchio *et al.*, ref. 2, p. 573.
6. Varricchio *et al.*, ref. 2, p. 574.
7. Because they rely on modern environments to explain evidence, they imagine the dinosaurs were buried 92 million years ago. In modern environments, sedimentation is not that rapid. But once you allow that Noah’s Flood was a real event that engulfed the whole earth, the raging waters sweep the millions of years away. And the evidence for rapid deposition is overwhelming.
8. Schieber, J., Southard, J. and Thaisen, K., Accretion of mudstone beds from migrating floccule ripples, *Science* **318**(5857):1760–1763, 2007. See also: Walker, T., Mud experiments overturn long-held geological beliefs, *Journal of Creation* **22**(2):14–15, 2008; <creation.com/mud/>.
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