

# Paleontologist describes large nest of juvenile dinosaurs, first of their genus ever found

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A nest containing the fossilized remains of 15 juvenile *Protoceratops andrewsi* dinosaurs from Mongolia has been described by a University of Rhode Island paleontologist, revealing new information about postnatal development and parental care. It is the first nest of this genus ever found and the first indication that *Protoceratops* juveniles remained in the nest for an extended period.

The findings were reported in the most recent issue of the *Journal of Paleontology*.

David Fastovsky, URI professor of [geosciences](#), said the bowl-shaped [nest](#) measuring 2.3 feet in diameter was found in the Djadochta Formation at Tugrikinshire, [Mongolia](#).

"Finding juveniles at a nest is a relatively uncommon occurrence, and I cannot think of another dinosaur specimen that preserves 15 [juveniles](#) at its nest in this way," he said.

The analysis of the 70-million-year-old nest by Fastovsky and his colleagues found that all 15 [dinosaurs](#) – at least 10 of which are complete specimens – were about the same size and had achieved the same state of growth and development, suggesting they represent a single clutch from a single mother. The discovery also indicates that the young dinosaurs remained in the nest through the early stages of postnatal development and were cared for by their parents.



*Protoceratops* grew to about 6 feet long and may have taken as long as 10 years to reach full size. Those Fastovsky found in the nest were likely less than one year old when they died.

"I suspect that the preserved animals were rapidly buried by the shifting, accumulating sands that must have constituted the bulk of sedimentation in this setting," he said. "Death likely occurred during a desert sandstorm. My guess is that the initial and present-day dryness contributed significantly to the superb preservation, not just of

*Protoceratops*, but of all the fossils from this unit."

Fastovsky calls *Protoceratops* "a fascinating and unexpected mass of contradictions." It is an herbivore that lived in a sand sea much like the Sahara Desert and likely bestowed significant parental care on a relatively large number of offspring, perhaps because it lived where mortality was quite high.

A wide variety of theropod dinosaurs lived in Mongolia at the time, some of which, including the notorious *Velociraptor*, probably ate young *Protoceratops*'.

"Juvenile *Protoceratops* mortality may have been rather high, not only from predation but from a potentially stressful environment, and large clutches may have been a way of ensuring survival of the animals in that setting," he said. "Nonetheless, if preservation is any indicator of abundance in life, then during the time represented by the Djadochta Formation, *Protoceratops* were a very common feature of Mongolian Late Cretaceous desert landscapes."

Provided by University of Rhode Island

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