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Article

Unusual morphology in the mid-Cretaceous lizard *Oculudentavis*

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Highlights

- A new species of the reptile in amber, *Oculudentavis*, is described
- *Oculudentavis* is a bizarre lizard, not a bird
- The bird-like appearance of *Oculudentavis* is due to convergence in skull proportions

Summary

Oculudentavis khaungraae was described based on a tiny skull trapped in amber. The slender tapering rostrum with retracted narial openings, large eyes, and short vaulted braincase led to its identification as the smallest avian dinosaur on record, comparable to the smallest living hummingbirds. Despite its bird-like appearance, *Oculudentavis* showed several features inconsistent with its original phylogenetic placement. Here, we describe a more complete specimen that demonstrates *Oculudentavis* is actually a bizarre lizard of uncertain position. The new specimen is described as a new species within the genus *Oculudentavis*. The new interpretation and phylogenetic placement highlight a rare case of convergent evolution in skull proportions but apparently not in morphological characters. Our results re-affirm the importance of Myanmar amber in yielding unusual taxa from a forest ecosystem rarely represented in the fossil record.



Keywords

burmite; dinosaur; lizard; HRCT; synchrotron; Myanmar; comparative anatomy; phylogenetic analyses; osteology; Cretaceous

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