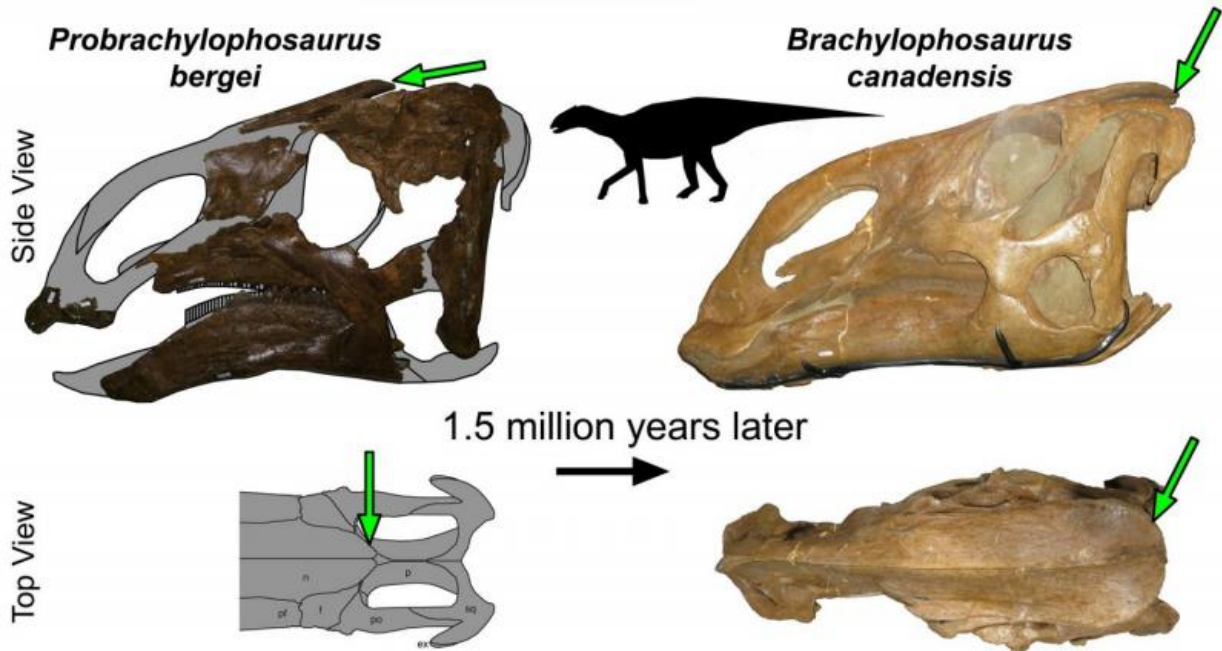


New 'short-crested lizard' found in Montana

November 11 2015



A *Probrachylophosaurus* visual abstract. Credit: Elizabeth Freedman Fowler

The newly described *Probrachylophosaurus bergei*, a member of the Brachylophosaurini clade of dinosaurs, has a small flat triangular bony crest extending over the skull and may represent the transition between a non-crested ancestor, such as *Acristavus*, and the larger crests of adult *Brachylophosaurus*, according to a study published November 11, 2015 in the open-access journal *PLOS ONE* by Elizabeth Freedman Fowler and John Horner from Montana State University, USA.

Brachylophosaurini is a clade of hadrosaurine dinosaurs currently known from the Late Cretaceous of North America. Its members include *Acristavus gagslarsoni* (lived ca. ~81-80 million years ago), which lacks a nasal crest, and *Brachylophosaurus canadensis* (lived ca. ~77.8 million years ago), which possesses a flat paddle-shaped nasal crest projecting back over the top of its skull. The authors of this study describe a new brachylophosaurin hadrosaur, *Probrachylophosaurus bergei*, from the Judith River Formation in northcentral Montana, dated to ~79.8-79.5 million years ago, and compared its skull and body [shape](#) to related dinosaurs.

Elizabeth Freedman Fowler notes: "This part of the Judith River Formation represents a slice of time intermediate between areas where lots of dinosaur fossils have been collected in the past. The new species that we find here are 'missing links' between known dinosaur species, so it's a really exciting field area."

Probrachylophosaurus' head shape, most notably the bony triangular nasal crest, falls between *Acristavus* and *Brachylophosaurus*. The nasal crest of *Probrachylophosaurus* is proposed to represent a transitional nasal shape between the non-crested ancestor, such as *Acristavus*, and the large flat posteriorly oriented nasal crest of adult *Brachylophosaurus*. Because *Probrachylophosaurus* is estimated to have lived between the time of the *Acristavus* and *Brachylophosaurus*, and have a nose shape intermediate between them, *Probrachylophosaurus* is hypothesized to be an intermediate member of the *Acristavus-Brachylophosaurus* evolutionary lineage.

More information: Freedman Fowler EA, Horner JR (2015) A New Brachylophosaurin Hadrosaur (Dinosauria: Ornithischia) with an Intermediate Nasal Crest from the Campanian Judith River Formation of Northcentral Montana. *PLoS ONE* 10(11): e0141304. [DOI: 10.1371/journal.pone.0141304](#)

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