

the alisphenoid and the basisphenoid is preserved, proving by its position that the large flange, directed outward from above and somewhat behind the basisphenoid process, belongs to and is part of the basisphenoid. It may be of interest also to note that in this skull the ophthalmic branch of the trigeminal nerve (V) is enclosed in bone in its forward course and does not occupy an open channel as it appears to do in *Edmontosaurus*. Further, indicating an unusually perfect preservation of structural detail, the separation of the fenestra rotunda from the fenestra ovalis by a horizontal bar of bone is excellently shown.

To the preparation of this skull by C. M. Sternberg, its discoverer in the field, are due many details of structure that less skilful and painstaking work would not have revealed.

With a better understanding of the stephanosaurinid skull certain errors in the description of the skull of *Cheneosaurus* (Figure 39J) as it appeared in the pages of the Ottawa Naturalist in 1917, can now be rectified. What was regarded as prefrontal is certainly the expanded prolongation backward of the lower, external part of the premaxilla, and the supposed sutural line running forward from the lower end of the lachrymal (see original figure) is evidently a fracture in the bone. The convex, upper surface of the dome is nasal met in front by the upper part of the premaxillary roofing the nasal passage. The bone above the orbit called supraorbital in the first instance is the prefrontal, and the frontal is similar to the frontal in both *Stephanosaurus* and *Corythosaurus* in being small and excluded from the orbital rim by the intervention of the prefrontal and postfrontal.

The posterior height of the skull shows a marked difference in five genera of crestless or flat-headed hadrosaurs (*Hadrosaurinae*) from the Cretaceous of the west of this continent, viz., in *Kritosaurus* (horizon uncertain = ?Edmonton formation), in *Edmontosaurus* (Edmonton formation), in *Gryposaurus* (Belly River formation), and in "*Claosaurus*" (*annectens*) and *Diclonius* both from the Lance formation. In *Kritosaurus* Brown, from the Ojo Alamo beds of New Mexico, the quadrate is of remarkable length, in *Diclonius* Cope, from Dakota, it is singularly short, the two representing the extremes of skull elevation and depression in the *Hadrosaurinae* (*Trachodontinae* of Brown). In these five genera, in all of which, with the exception of *Kritosaurus*, the skull is fully known from excellent material, the proportionate lengths of the quadrate and skull may be expressed in numbers as follows: *Kritosaurus* 1—over 2; *Gryposaurus* 1— $2\frac{1}{2}$; *Edmontosaurus* 1—over $2\frac{1}{2}$; "*Claosaurus*" 1—nearly 3; and *Diclonius* 1—nearly 4. From this comparison it is seen that in *Kritosaurus* the posterior height of the skull (length of quadrate) relative to the horizontal length of the same is the greatest, that *Kritosaurus*, *Gryposaurus*, *Edmontosaurus*, and "*Claosaurus*" form a series, in the order named, in which the quadrate is successively reduced in length in about the same ratio, and that the greatest difference in the height of the skull is found between "*Claosaurus*" and *Diclonius*. It would appear, therefore, that as time progressed the skull in the *Hadrosaurinae*, as a general rule, became lower, culminating in the greatly depressed and very long skull of *Diclonius* in the closing days of the Cretaceous. The posterior height of the skull in *Edmontosaurus* is greater than the average among the genera of flat-headed hadrosaurs in which the head is known.