

end of centrum only), twenty-seventh, and twenty-eighth, and from a tail of another individual (see page 29), we have knowledge of thirty-one caudal vertebrae. Judging from the rate of taper in the more posterior vertebrae it is estimated that five more vertebrae completed the tail giving a full number of thirty-six caudals.

The tail is almost equal to one-half the total length of the animal and must have played an important part in preserving the creature's balance; it was probably dragged for a small part only of its distal length. That the tail was incapable of much flexion is apparent from the greatly increased length of the zygapophyses, and the extent to which they interlock at and behind its midlength. It is probable, however, that the degree of rigidity was not as great as in the tail of the slender and contemporaneous *Ornithomimus altus* Lambe, if to that species properly belonged, as is supposed, the peculiarly shaped caudal vertebrae with greatly elongated, horizontal, and flattened prezygapophyses described and figured by the writer in 1902.¹

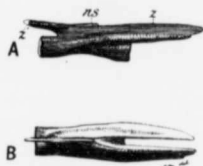


Figure 17. Caudal vertebra of *Ornithomimus altus* Lambe; $\frac{1}{2}$ natural size. A, right lateral aspect; B, superior aspect; ns, neural spine; z, prezygapophysis; z', postzygapophysis.

shape from the high, laterally compressed tail of Trachodon, and probably resembling in proportions that of some of the existing terrestrial lizards such as the carnivorous *Tupinambis nigropunctatus* of South America and the European *Lacerta ocellata*.

In the type skeleton the caudal vertebrae with their chevron bones are in place up to and including the twenty-second. The twenty-third, twenty-fourth, twenty-seventh, twenty-eighth, and part of the centrum of the twenty-sixth were discovered displaced separately in the matrix so that all the vertebrae of the tail in the type are known up to the twenty-eighth inclusive except the twenty-fifth and the greater part of the twenty-sixth.

In general proportions the anterior caudal vertebrae are stout and about as high as long (Figure 14). In passing backward they soon assume a lengthened, cylindrical form as their diminution in length is less rapid than in height. The neural spines, the transverse processes, and the chevron bones are short, resulting in a tail which, in life, must have been in its proximal half nearly as broad as high, becoming more cylindrical, or circular in cross-section, toward its end, a tail which would be quite different in

¹ Geol. Surv., Can., Cont. to Can. Pal., vol. III, pt. II. New genera and species from the Belly River series (Mid-Cretaceous).

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