

forward and upward, to the upper end of the front border, it outwardly overlaps the pterygoid, the amount of overlap being greatest toward the front and back diminishing to a simple narrow contact at the midlength of the overlap. The bone thickens near the maxillary suture, and is strengthened interno-anteriorly by a smooth ridge which beginning as a thickening of the anterior emargination passes down to the lower border. Behind this ridge the inner surface is broadly and shallowly concave. In advance of the ridge the bone bends outward and spreads transversely to form the jugal surface of contact. In the foremost part of its contact with the maxilla the palatine extends downward to some extent on the outer surface of the maxillary border. Infero-posteriorly the palatine develops a thin, laterally compressed, backwardly directed process between which and the main termination of the bone the border of the pterygoid ascends to its lapping contact with the palatine. Antero-superiorly the palatine apparently does not reach the vomer, the pterygoid intervening.

	Mm.
Maximum height of right palatine.....	134
Maximum length of same, measured horizontally within vertical lines, about.....	185

Ectopterygoid. (*Ept.*). *Figures 13 and 19.* This bone is closely applied externally to the maxilla and pterygoid with its length in an antero-posterior direction. It is about twice as long as high and is thin and overlapping except in a small inwardly thickened area which fits into the postero-maxillary notch, and comes between the maxilla and pterygoid in sutural contact with both. In lateral outline it is broadest behind, narrows rapidly forward for one-third of its length, and is continued narrowly forward to its anterior end. Its external surface is gently undulating. Its anterior two-thirds of length lies closely in the postero-external concave area of the maxilla on and above the shelf formed by the horizontal ridge extending back from the maxillo-jugal surface of contact. The upper and lower borders of the bone, where it begins to broaden posteriorly, fit into two grooves in the maxillary, one in the lower surface of the postero-maxillary process, the other curving downward round the posterior end of the maxillary ridge. Here the bone thickens inwardly below the superior border and fills the maxillary notch, underlapping also the maxillary process internally to a slight extent. Below the thickened part the inner face of the bone is excavated to fit closely over the upper convexity of the posterior end of the maxillary. Posteriorly the bone broadly overlaps the pterygoid.

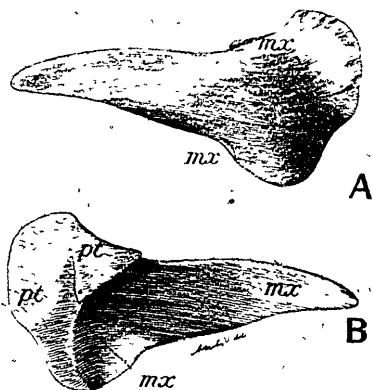


Figure 19. Left ectopterygoid of Edmontosaurus, Cat. No. 2289; $\frac{1}{4}$ natural size. A, outer aspect; B, inner aspect; mx, surface of contact with maxillary; pt, with pterygoid.