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ON A VERY PERFECT THORACIC SHIELD OF A LARGE LABYRINTHODONT IN THE GEOLOGICAL COLLECTIONS OF THE UNIVERSITY OF MICHIGAN

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Remains of the large Labyrinthodonts of Triassic age are known from many localities within the United States, but very few specimens are more than fragments and reveal little of the anatomy. Branson (*Jour. Geol.*, XIII [1905], 568–94) has summarized the known material up to the date of his paper. In the summer of 1919, while examining the Dockum beds in western Texas, the author collected the nearly perfect clavicles and interclavicle (episternum) of a large form. As shown in the accompanying photograph, the plates are in such a perfect state of preservation as to show all the details of the lower surface. Only the extreme tips of the slender processes of the anterior ends of the plates and the scapular processes of the upper surface are lost.

The interclavicle is rhomboidal in form with the center of ossification and sculpture in the posterior half. The clavicles articulate with the interclavicle by overlapping suture at the posterior end; the contact was preserved by strong ridges and

grooves. The clavicles are decidedly convex at the posterior end and the center of sculpture is presented laterally rather than downward. The loss of the broken tips of the slender processes of the anterior ends of the bones was slight and they did not meet in the median line; the intervening space must have been filled with cartilage. The scapular processes of the clavicles are represented by their base; the posterior end is about 12 mm. broad and the plates rapidly diminish to extreme thinness. The process lies in the posterior third of the clavicle and about 18 mm. within the outer edge. It is probable, but not certain, that the processes did not extend beyond the posterior edge of the bone.

A few typically stereospondylus vertebrae and fragments of skull bones have been found in the same locality.

The measurements are as follows:

	Mm.
Length of the interclavicle	328
Breadth of the interclavicle	290
Length of the clavicle	285
Breadth of the clavicle	165

The only specimens found in the United States with which this specimen can be compared are the interclavicle described by Lucas (*Proc. U.S. Nat. Mus.*, XVII [1904], 193–95) from the Triassic, five miles east of Tanner's Crossing, Little Colorado River, Arizona, and an imperfect interclavicle found near Tuckers Springs, on the road from Holbrook to Leupp, Arizona, which probably belongs to the same genus and species as Lucas' specimen. As shown in Plate III of Lucas' paper, his specimen resembles the one here described fairly closely but differs somewhat in proportions, being 430 mm. in length and 300 mm. in breadth; also the coarse reticulate sculpture of Lucas' specimen covers a proportionately larger part of the surface of the plate.

In comparison with the thoracic plates of *Metoposaurus diagnosticus* Frass from the lower Keuper of Hansweiler near Stuttgart

(*Paleontographica*, Band 36 [1889], pp. 137–58) certain small, perhaps only specific, but notable differences are apparent. The measurements of Frass' specimen are as follows:

	Mm.
Length of the interclavicle	280
Breadth of the interclavicle	230
Length of the clavicle	300
Breadth of the clavicle	125

The clavicles articulate with the interclavicle by overlap on the lower side, but the outline of the suture is distinctly angular instead of broadly rounded; the clavicles meet in the median line for a distance of 120 mm.; the coarse reticulate sculpture is restricted to a very small area around the center of ossification.

So far as may be determined from the thoracic plates alone it appears that the specimen here described may be referred to the genus Metoposaurus, but that they must be placed in a separate species. For this species I take pleasure in proposing the name *M. jonesi* in grateful acknowledgment of the assistance afforded me by Clifford Jones, manager of the Swenson estate, upon which the specimen was found.

PLATE I

View of the lower surface of the thoracic plates of *Metoposaurus jonesi*, ×about $\frac{1}{6}$.