

ON A PRECAUDAL VERTEBRA OF *ICHTHYOSAURUS*  
*AUSTRALIS*, McCOY.

By R. ETHERIDGE, JUNR., Curator.

THE subject of this paper is the imperfect vertebra of a large Ichthyopterigian, referable, I believe, to *Ichthyosaurus australis*, McCoy.\* The original was brought under my notice by the Rev. M. Kirkpatrick, of Bega, N. S. Wales, who obtained it from Marathon, Central Queensland. With his permission a cast was taken for the Australian Museum Collection. As Sir F. McCoy's description was very brief, an extended notice of one of the middle trunk, or anterior pre-caudal vertebræ, may be acceptable to Australian investigators.

The specimen is the centrum of a large vertebra measuring five inches in its vertical and transverse diameters, and rivals in size those of the gigantic *I. campylodon*, Carter, from the European Chalk, the vertebra figured† by the late Sir Richard Owen measuring only four inches high. Our example is devoid of the neural spine, neurapophyses, and pleurapophyses, but having the articular surfaces of the first and last well displayed. The positions of the diapophysial and pleurapophysial articular surfaces leads to the belief that the vertebra is one of the middle trunk series. It is subcircular in outline, slightly narrowed and contracted neurally. Measured across the articular surfaces from the neural to the hæmal margins the diameter is exactly five inches, and in a transverse direction, from diapophysis to diapophysis it is an eighth of an inch short of a similar measurement. Longitudinally measured between the dia- and pleurapophysial tubercles the centrum is exactly two inches, but on the hæmal surface it is a quarter of an inch more.

The concave terminal articular surface visible is deep, terminating in a central fossa, the extent of the concavity being well exemplified by the matrix cast of the anterior cavity of the succeeding vertebræ at the posterior end of this specimen. This mass of matrix represents the "elastic capsule" that intervened between the vertebræ, and retains on its surface portions of the osseous tissue of the succeeding centrum. The periphery or immediate articular rim at each end is narrow, the surface thence sloping rapidly inwards, but the edges of the rims project slightly

\* Trans. Roy. Soc. Vict., viii., 1868, p. 41.

† Owen—Mon. Foss. Reptilia Cret. Formation, p. 79, pl. xxii.