OBSERVATIONS REGARDING THE RECENT DISCOVERY BY G. THUREAU, F.G.S., OF A FOSSIL REPTILE IN THE MERSEY COAL MEASURES AT RAILTON.

By R. M. Johnston, F.S.S.

Mr. G. Thureau, formerly Government Geologist of Tasmania, has kindly submitted to me a carefully prepared cast of the remains of a fossil reptile discovered by him in the spoil-heap from a (then) new main shaft sunk by a Sydney company near Railton, in the Mersey Coal Measures, and, therefore, of Upper Permo-Carboniferous age. The original was placed by Mr. Thureau in the hands of the late Professor M'Coy for identification; but the regrettable death of the Professor soon after prevented this investigation, and Mr. Thureau is now anxious to make known his important discovery to the Members of this Society; because—as Mr. Thureau thoughtfully observes—the possession of this interesting fossil from our rocks—now in the Melbourne Museum—"rightly belongs to Tasmania."

The cast referred to—now submitted for the inspection of the Members of this Society—represents portion of the central and caudal vertebræ of the reptile, with the simple gently-curved ribs of the central part perfectly connected. The central or pre-sacral vertebra number 13 or 14, with a length of three inches, and greatest breadth one and a half inches; vertebra of the tail thicker, more pronounced, four to five in a length of nearly one inch.

The absence of the head, limbs, and caudal extremity, and the absence of definite knowledge regarding the articulation, form, &c., of the vertebræ, make it impossible to do more than assign its position to the great family of Labyrinthodonts, whose range in Europe is generally determined as from the Carboniferous to the Trias, and are especially abundant in the Permian. It is stated by

Nicholson and Lydekker that only one genus (*Rhinosaurus*) persisted to the Lower Jurassic.

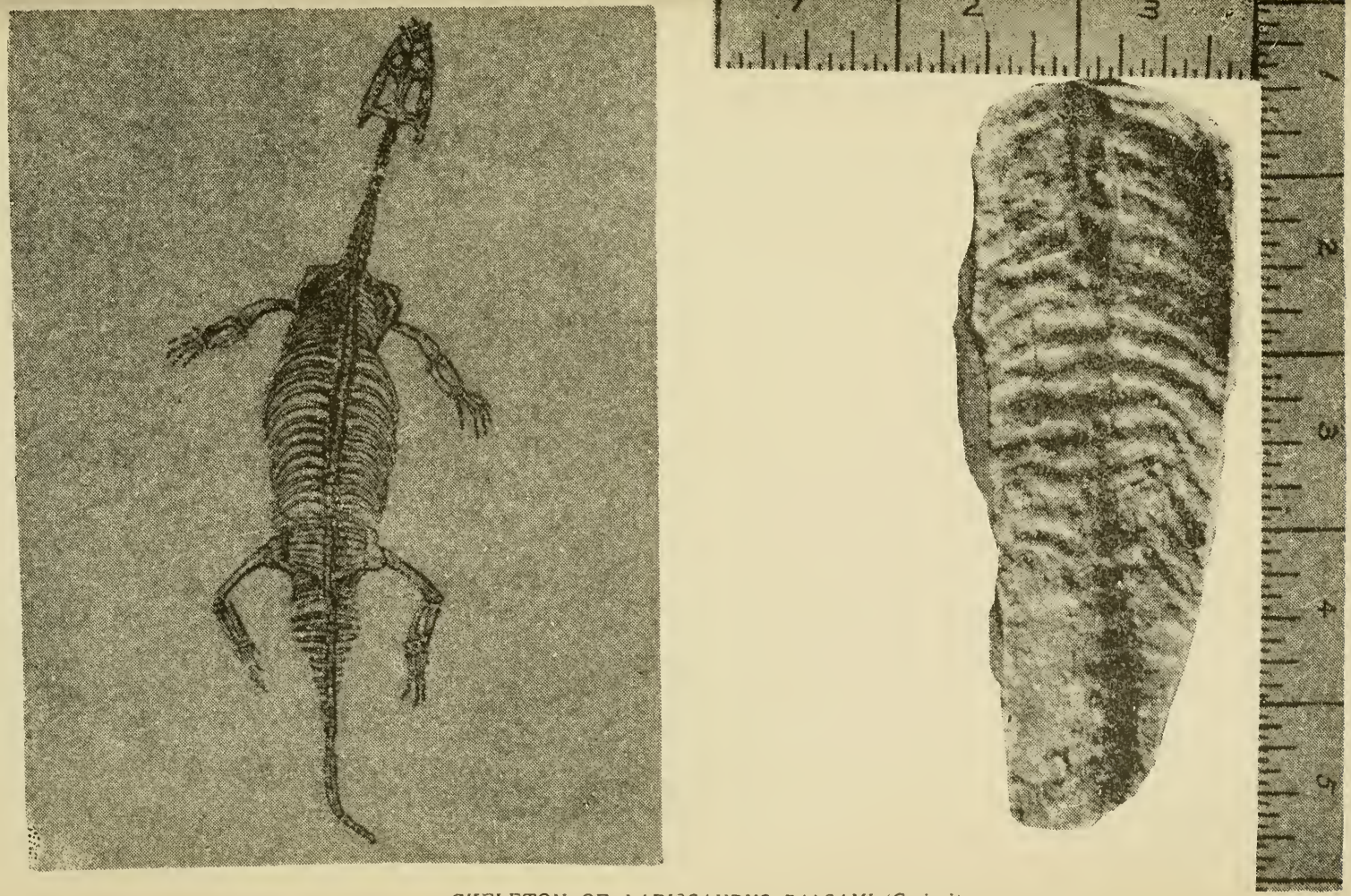
The Pterodactyls or winged reptiles, to which Mr. Thureau suggests a reference, had not the elongate central vertebræ of the form whose cast is now before you, and there is not the slightest evidence of the characteristic bones of the manus. Moreover, the Pterodactyls only make their first appearance in Europe in the rocks of Upper Jurassic age, whereas the fossil skeleton of the reptile now considered, if obtained, as stated, from the Mersey Coal Measures, undoubtedly belongs to Permo-Carboniferous age.

It is to be hoped that Mr. Thureau may be able to obtain the original for the Tasmanian Museum, to which, by right, it belongs, when the opinion of our best European or American specialists may be obtained as to its exact affinities among the reptilia. My own opinion, which I have great diffidence in expressing, is, that it probably comes within that group of the Labyrinthodontia, embraced within the Sub-order *Microsauria*. The Labyrinthodonts included in this Sub-order, resemble Lizards in outward appearance, and have the centra of the vertebræ more or less elongated, and long curved ribs.

One genus of this order, *Limnerpeton*, of the Permian of Bohemia, possesses characteristics of the vertebræ of the central and caudal parts, which come very close to our Tasmanian representation from the Permo-Carboniferous Coal Measure of Railton, Tasmania.

I am sure the Members of this Society will agree with me in thanking Mr. Thureau for his valuable cast of the reptile, and for his promise to endeavour to secure the original for the National Museum of the Country where the skeleton was found.

For the sake of reference, and as a compliment to Mr. Thureau, I propose in the meantime to refer always to this, the oldest known remains of a vertebrate in Tasmanian rocks, as "*Thureau's Microsaurian*."



SKELETON OF *LARIOSAURUS BALSAMI* (Curioni)

Muschelkalk, Perledo, Lago di Como, Italy (⅛ nat. size; original in Munich Museum).