

12. On PART of the PELVIS of POLACANTHUS. By R. LYDEKKER, Esq.,
B.A., F.G.S. (Read December 23rd, 1891.)

AMONG the specimens lately acquired by the British Museum from the collection of the late Mr. Beckles, of Hastings, is one to which my attention has been directed by my friend Mr. A. Smith Woodward. It bears the number R. 1926 in the Museum Register; and, like the majority of Mr. Beckles's specimens, is evidently from the Wealden. Mr. Charles Dawson, who has had so much experience in Wealden fossils, has been good enough to examine the specimen, and considers that it is almost certainly from the Isle of Wight, and not from Hastings.

One glance at the specimen is sufficient to show that it is the central part of a Dinosaurian ilium, with portions of the sacral ribs still attached to its inner surface. It belongs to the right side, as proved by the position of the ischial tuberosity; and while both extremities of the ilium are wanting, the acetabular region is fairly well preserved. The pre-acetabular portion of the ilium forms a roof-like expansion; while the post-acetabular process is compressed and comparatively thin. The upper border of the ilium is straight. The broken portions of the sacral ribs (five in number) are triangular in section, and have deep indentations between them; so that they form buttress-like structures of great strength. The whole contour of the ilium and sacral ribs is quite unlike that obtaining in *Iguanodon* and its allies. It appears most likely that the pre-acetabular portion of the ilium when entire was greatly expanded laterally, as is the case in *Stegosaurus*.

The point of especial interest connected with the specimen is, however, the presence of a large flat plate of bone, somewhat more than $\frac{1}{2}$ inch in thickness, resting on the upper border of the ilium, from which it is separated by the intervention of a thin layer of matrix. This bony plate is evidently a portion of a dermal armour, and thus suggests comparison of the specimen with the dorsal shield of the Dinosaur from the Wealden of the Isle of Wight described by Mr. Hulke as *Polacanthus Fovii*.¹

Such a comparison shows that the present specimen undoubtedly belonged to a closely allied, if not specifically identical Dinosaur. It is true, indeed, that in the specimen described by Mr. Hulke what remains of the pelvis and sacrum is crushed almost flat on to the under surface of the dorsal shield. Still, however, there is sufficient preserved in the former to show that the ilium and sacral ribs are of the same type as in the specimen under consideration; the triangular cross-section of the sacral ribs being especially noticed in Mr. Hulke's description of his specimen. Moreover, when compared with the pelvis and sacrum of the much larger Kimmeridgian Dinosaur described by Sir R. Owen as *Omosaurus*, which belongs to the same group as *Polacanthus*, the present specimen again presents a

¹ Phil. Trans. for 1887 (n), p. 169, pl. viii. [The name *Polacanthus* (Hulke, 1881, *ex* Owen), as has been pointed out to me, is preoccupied by *Polyacanthus*, Kuhl, 1831, and ought, therefore, to be changed. — Feb. 1892.]

POLACANTHUS, sp.

Fig. 1.

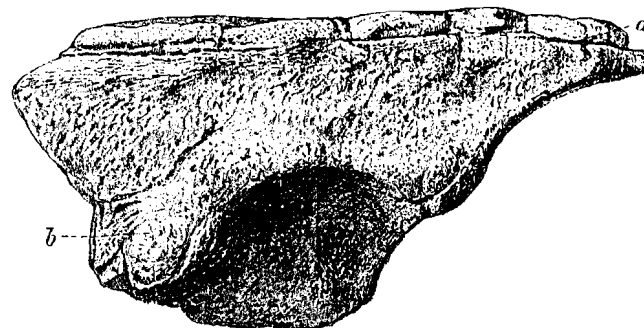
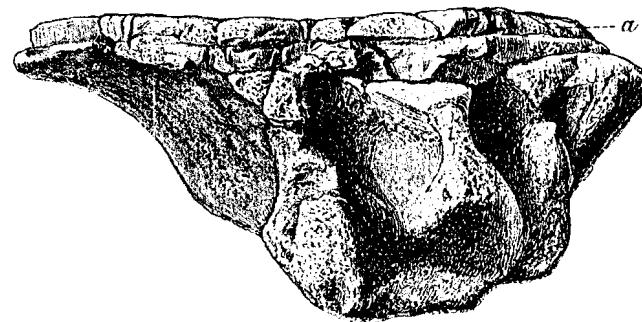


Fig. 2.



EXPLANATION OF FIGURES.

Outer (fig. 1) and inner (fig. 2) views of the imperfect right ilium and sacral ribs, with part of the dermal armour. $\frac{1}{4}$ natural size. a = dermal shield; b = tuberosity for ischium.

close general resemblance, especially as regards the form of the sacral ribs, and the deep pits by which they are separated from one another; these pits being apparently roofed over by an inward extension of the upper part of the ilium. The same features are noticeable in the apparently generically identical American Dinosaur of which the pelvis and sacrum are figured by Prof. Marsh as *Stegosaurus*.

The chief characteristics of the specimen under consideration are shown in the accompanying figures.

As the result, then, of my study of this specimen, it appears that it indicates a Dinosaur which may be referred to *Polacanthus*; and the question then arises whether or no it is specifically identical with the typical *P. Fovii*.

Now, so far as the crushed condition of the pelvis and sacrum of the latter admits of forming a definite opinion, the corresponding portions of the present specimen appear at first sight to be of a decidedly more massive type. It is quite possible, however, that the crushing and maceration which these bones have evidently undergone in Mr. Hulke's specimen may have somewhat exaggerated these apparent points of difference, and that the two ilia are not very different.

A more important point of distinction remains to be noticed. As is beautifully shown in Mr. Hulke's plate, the upper surface of the dorsal shield of *P. Fovii* carries a number of bosses for the articulation of the large spines found in association with the figured specimen. In Mr. Beckles's specimen, on the contrary, the corresponding surface of the dermal armour is perfectly flat, without the faintest trace of such bosses. It might be urged that the absence of these bosses is due to the effects of rolling on the shore; but the other parts of the specimen do not show signs of excessive rolling, and it would surely require a great deal of such action to remove all traces of these bosses if they ever existed.

It appears, however, impossible to be absolutely certain in regard to this point; but if subsequent 'finds' should prove that in this Dinosaur the dermal armour was smooth, I would suggest that the species might be appropriately named after its discoverer, Mr. Beckles.

It is unfortunate that both extremities of the ilium of this specimen are broken away, so that we cannot determine the relative lengths of its pre- and post-acetabular processes; but in spite of this deficiency the specimen itself is of importance, as showing more clearly than hitherto the close affinity existing between *Polacanthus* and the larger Dinosaurs described as *Omosaurus* and *Stegosaurus*.¹ The remarkable character of the dermal armour of the latter, as lately restored by Prof. Marsh, amply serves, however, to establish its generic distinctness from *Polacanthus*.

¹ [Since this paper was sent in to the Society Prof. Seeley (*supra*, pp. 81-85) has more fully described the ilium of *Polacanthus*, and indicated the relationship of the genus to *Stegosaurus* and the so-called *Omosaurus*. I doubt, however, whether he has allowed sufficiently for the effect of crushing. He considers the present specimen (*supra*, p. 84) as generically distinct from *P. Fovii*.—Feb. 1892.]