

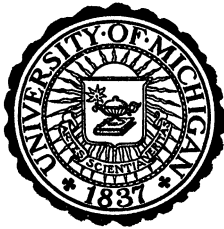
**CONTRIBUTIONS FROM THE MUSEUM OF GEOLOGY
UNIVERSITY OF MICHIGAN**

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**A COMPLETE PHYTOSAUR PELVIS FROM
THE TRIASSIC BEDS OF WESTERN TEXAS**

**BY
E. C. CASE**



**UNIVERSITY OF MICHIGAN
ANN ARBOR**

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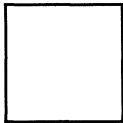
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CONTRIBUTIONS FROM THE MUSEUM OF GEOLOGY

UNIVERSITY OF MICHIGAN

Editor: EUGENE S. McCARTNEY

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(Continued on inside of back cover)

A COMPLETE PHYTOSAUR PELVIS FROM THE TRIASSIC BEDS OF WESTERN TEXAS

E. C. CASE

DURING the summer of 1925 the expedition from the Geological Museum of the University of Michigan recovered from the Dockum beds, upper Triassic, of Crosby County, Texas, a nearly complete pelvis of a large Phytosaur, probably of the genus *Phytosaurus*. The specimen was discovered by Mr. W. H. Buettner and has been prepared and mounted by him. In 1920 an expedition from the Geological Museum to the same locality recovered an imperfect ilium and the larger portion of a very fragmentary skull from the same spot where the pelvis was found in 1925. The imperfect right ilium was described and figured by the author in Publication 321 of the Carnegie Institution of Washington (Figure B, Plate 13, and Figure 27 C, page 71), and given the number 7244, U. of M. The pelvis recovered in 1925 lacked the right ilium, and in an effort to complete the otherwise perfect pelvis it was seen that the ilium found several years before fitted into the pelvis exactly. The skull had proved to be so incomplete that it could not be assembled, but a search was made among the fragments and the missing part of the right ilium was discovered. This is recorded to show the association of the skull and the pelvis, a fact supported by the exactly similar condition of fossilization and the identical locality of discovery.

The pelvis is so complete and so little distorted that it has been possible to assemble the bones in the position which they occupied in life and to show the exact form of the pelvis. The figures reveal the form and the relations of the bones better than could be done by a long description. The most striking

points are the long ischiadic symphysis, the large pubo-ischiadic opening and the sudden, apron-like, descent of the pubes. The pubic foramen was not completely closed; the bone becomes very thin at the inner portion and approaches very closely on the two sides of the opening, but the edges are complete. The small intervening space was undoubtedly filled with cartilage. The outline of the large pubo-ischiadic foramen is very nearly exact; although the bone is very thin the edges are complete in almost every part. The sudden descent of the pubes has been shown in some of the European forms and also in the extreme degree in the form described by Mehl as *Accompsosaurus wingatensis*. The angulation of the two halves of the pelvis was checked by the bevel of the ischial symphysis and the meeting of the pubes. This compelled a spread somewhat greater than seemed correct and greater than was suggested by sacral vertebrae and ribs of other specimens in the collection of the Geological Museum, but it can not be more than three fourths of an inch too great, at the most.

Four vertebrae were found in close association with the pelvis, two without chevron facets and two with facets; it is assumed that they are the last two pygals and the first two caudals. The spines of all these vertebrae are noticeably high; it is possible that the vertebrae are placed a little too high in the mount.

As the pelvis was found in such close association with the fragmentary skull and as a fragment of the imperfect right ilium was found among the fragments of the skull, it seems very probable that the pelvis and skull are parts of one specimen. Such fragments of the skull as permitted measurements were compared with a large skull in the collection of the Geological Museum and found to show almost identical dimensions. If the assumption that the bones belong to one specimen is correct, the pelvis belonged to an animal with a skull 112 centimeters long. It was stated in the original description of the skull (No. 7532, U. of M.) with which the fragments were compared, that the exact length could not be determined, but it is now known that the continuity is complete from end to end and the measurement is exact.

PLATE I



FIG. 1. Right side of the pelvis. $\times .15$

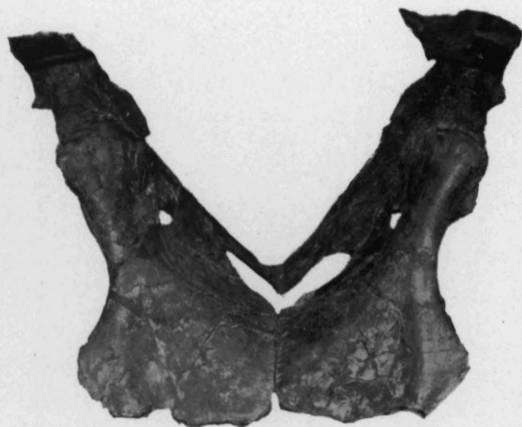


FIG. 2. Anterior view of pelvis. $\times .2$

The following measurements give an idea of the size of the pelvis:

Length of crest of complete left ilium.....	27.6 Cm.
Greatest antero-posterior length of pubis-ischium.....	41.6
Length pubo-ischiadic symphysis.....	38.4
Height from pubic symphysis to crest of ilium.....	22.4
Outside width at crest of ilia	35.0

(Continued from inside of front cover)

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