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April 12, 1971

PALEONTOLOGICAL NOTES

A PECCARY FROM THE PLEISTOCENE OR HOLOCENE OF MISSISSIPPI

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Fossil peccaries have not been reported previously from Mississippi or Louisiana. O. P. Hay (1923) indicates no finds in these states on his map of the distribution of Pleistocene peccaries in eastern North America. Arata (1964) stated that:

> Although peccaries are known from the Pleistocene of Texas, Arkansas and Florida, and may well have occurred in Louisiana, no material to substantiate their presence has been reported to date.

Daryl P. Domning (1969) does not mention peccaries in his list of species of fossil vertebrates reported from Louisiana and Mississippi except for a mistaken report by Brown (1938) which was corrected by Arata (1964).

In December, 1969, geology student Randle E. Roberts, Jr. found the peccary bones here reported partially buried below almost three feet of soil in a road cut on the Mississippi State University campus behind the biology building. Only two elements were found, although digging was done in an effort to find more. The elements, which Roberts states were found buried within three inches of each other, are diagnostic metapodials III and IV, and, although distal articulated, apparently belonged to the same extremity. Because of the lack of comparative material it has not been determined whether the bones are metatarsals or metacarpals. After examining the bones, Dr. Clayton E. Ray, Division of Vertebrate Paleontology, U. S. National Museum, Washington, D. C., confirmed their identification as peccary material.

Figure 1 shows what remains of the peccary metapodials after 9 mm of the proximal end including the articulating surface, had been removed from the longer fossil in order to make chemical tests. The original length was 89 mm. The shaft of the other metapodial was broken when found. The well-preserved condition of the distal epiphyses indicates the specimen belonged to a mature peccary. These specimens have been given the catalogue number 53 I 1[1] and will be in the possession of the Dunn-Seiler Geological Museum at Mississippi State University.

[1] 53 refers to Oktibbeha County which is 53rd in the state alphabetically, I is the symbol for fossil peccary, and 1 indicates that this peccary bone is the first to be found in Oktibbeha County.

Figure 1

Roberts found the peccary bones in soil a few inches above underlying Upper Cretaceous marl. At this level the pH is neutral and favorable to fossilization of bone material. The soil of the present surface approximately three feet above the peccary level is too acid to preserve bone.[2] Assuming that the same difference in pH existed during the Pleistocene, the interesting question presents itself as to how the bones quickly reached the level favorable for fossilization. I am currently studying this problem in adjacent Lowndes County, Mississippi where a number of Pleistocene fossil fragments more characteristic of the known Pleistocene fauna of Mississippi have been found on elevated ridges and under similar conditions.

[2] Personal communication with Dr. Harvey B. Vanderford and Dr. Rollin C. Glenn, Agronomy Department at Mississippi State University.

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April 12, 1971

RECENT BOOK

GEOLOGY OF MICHIGAN, by John A. Dorr, Jr., and Donald F. Eschman. Published by The University of Michigan Press, Ann Arbor, 1970, viii + 476 pp., $15.00

This is a synthesis of the geology of a single state, an unusual approach, but an interesting one. Following the introduction, the authors describe the geology of the state and explain its principal geological features and historical development, followed by its mineral resources and chapters dealing with the main types of rocks and fossils found in the state. It is well illustrated and pleasingly arranged.