

FOSSIL MAMMALS OF THE POST-PLIOCENE IN INDIANA.

It is well enough to remember, in connection with the study of our Post-Pliocene remains, that more than two-thirds of Indiana's area is very deeply covered with glacial accumulations which have been greatly changed, since they were first deposited, by the sorting and sifting action of ancient and recent water-currents, greatly varying in direction and force. The excavations made into this mass have been few and comparatively slight, hence, we can not say that our knowledge is based upon any very extended examinations. Most of the mammals, probably Post-Pliocene, found in Indiana, have been fragmentary, and so situated that it could not be certainly said, in many instances, whether the formation, in which they were discovered, was in place, or whether it had been reformed by the recent action of water. We all know the deceptive nature of river terraces, from a geological point of view, and it has been along the Ohio River that a large number of our Post-Pliocene remains have been found. In the case of any extinct species, whose existence has been predicated upon fragmentary and doubtful bones, it is safe for the student to be slow, and to err on the side of caution, if he err at all. The species of living and common animals is often hard to make out, with the entire structure before us, much more is it difficult to identify a species of fossil animal from a mere fragment, especially where the skull is wanting wholly or in its chief parts.

The absence of any well-defined Tertiary deposits in Indiana, and the conditions under which the Quaternary mass has been brought to its present state, often render it a very difficult thing to ascertain, even approximately, the line between recent and Quaternary, and between Quaternary and Paleozoic times.

The following brief list of the remains of the fossil mammals found in the Post-Pliocene of Indiana contains all the species that have been certainly identified up to date. It is inserted here as a guide to students, who may refer to it to ascertain whether any new remains found by them have hitherto been found in our State:

PECCARY, OR WILD HOG.

GENUS, DICOTYLES—COUVIER.

Dicotyles Torquatus.

Collared peccary, or "Wild Hog" of Texas and the South-West. This species is still living. It has never been found wild in Indiana, but sub-fossil bones doubtfully referred to it were found.

Dicotyles Nasutus. (Species extinct.)

Described by Dr. Leidy from fragments of upper jaw found. Fossil imbedded in earth thirty-five feet below the surface. Gibson County, Indiana.

GENUS PLATYGONUS—LECONTE.

Platygonus Compressus—LeConte.

Size of a medium-sized, slender hog. Fragment of left ramus and anterior part of mandible. Found at Laketon, Wabash County, Indiana.

CERVIDÆ. (Deer.)

CARIACUS DOLICHOPSIS—COPE.

Found in Harrison County, Indiana, by Prof. John Collett. "Left mandibular ramus of a deer, probably of the genus *cariacus*." The fragment was found in a "late lacustral deposit." It was found associated with sub-fossil remains of *C. virginianus*, which is suggestive.

TAPIRIDÆ. (Tapirs.)

TAPIRUS—COUVIER.

Francis A. Lincke, Esq., found, near Evansville, Indiana, some fossil fragments, doubtfully referred to *T. terrestris*, the South American tapir.

PROBOSCIDÆ. (Elephants, etc.)

ELEPHAS PRIMIGENIUS—BLUM.

This is the mammoth found in a fossil state in many parts of Indiana, usually in boggy deposits of the Post-Pliocene. Remains are most commonly molar teeth, distinguished by tightly crowded enamel plates, and tusks usually very long and spiral. The hairy elephant.

MASTODON AMERICANUS—BLUM.

This is the mastodon, the most ancient of elephants. It has the peculiarity of rudimentary, or degenerated tusks in the lower jaw. Its molars are distinguishable by prominent knobs or nipples on their grinding surface and by a very thick and hard enamel. Found in many counties of Indiana. Extinct since Post-Pliocene.

EQUIDÆ. (Horses.)

EQUUS FRATERNUS—LEIDY.

EQUUS MAJOR—DEKAY.

Remains of the above two species of horse are said to have been found "in the Post-Pliocene and *Pliocene* (?) deposits of Indiana." (Cope and Worthman, 14 Ind. Geol. Rep.)

RODENTIA.

CASTOROIDES OHIOENSIS—FOSTER.

A beaver-like animal of nearly the size of a black bear. Represented in Indiana by fragmentary bones and teeth found in Vanderburgh, Carroll and Kosciusko counties.

EDENTATA—LINN. (So-called toothless mammals.)

MEGALONYX JEFFERSONI—HARL.

This great sloth probably inhabited Indiana during a part of the Post-Pliocene age. Dr. D. D. Owen placed in the cabinet of the State University of Indiana the remains of a specimen found on the Kentucky side of the Ohio River just below Henderson. This species was enormous in size, being quite as large as an average ox.

The certainty that the mammals above enumerated inhabited Indiana in the Post-Pliocene period would seem to render it almost certain that many others were here at the same time.

A species of wolf, for which the name *Canis Mississippensis* has been proposed, was founded upon some bones discovered by Mr. J. A. Allen in Illinois. This is probably the *Canis lupus*, or gray wolf.

Some remains of a bison were found in Indiana by Mr. F. A. Lester, and Prof. John Collett reports the "ulno radius" of a *Bos*.

The reader, if he is fortunate enough to have a copy of the Fourteenth Indiana Geological Report, by Prof. Collett, will find therein a very excellent treatise giving a full and clear review of Indiana Post-Pliocene mammals. The report is very scarce, hence this paper has been compiled for the use of those who are not scientists, or who may wish to know at a glance whether or not any mammal fossil they have found is new to Indiana.