

NOTICE OF REMAINS OF THE WALRUS

DISCOVERED ON THE COAST OF THE UNITED STATES.

DESCRIPTION OF REMAINS OF FISHES

FROM THE CARBONIFEROUS LIMESTONE OF ILLINOIS AND MISSOURI.

REMARKS ON SAUROCEPHALUS AND ITS ALLIES.

OBSERVATIONS ON

THE EXTINCT PECCARY OF NORTH AMERICA;

REMARKS ON

THE STRUCTURE OF THE FEET OF MEGALONYX.

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REMARKS ON THE STRUCTURE OF THE FEET OF MEGALONYX.

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IN the Smithsonian Contributions to Knowledge entitled "A Memoir on the Extinct Sloth Tribe of North America," I attributed five toes to the hinder-feet, as well as to the fore-feet of the *Megalonyx*:—a greater number than is known to belong to any other genus of the Gravigrada. At the time of writing the memoir, I had only had the opportunity of seeing the second, fourth, and fifth metatarsal bones of the *Megalonyx*. Prof. M. Tuomey recently presented to the Academy of Natural Sciences, a collection of bones of the *Megalonyx*, discovered in a cave in the northern part of Alabama. In this collection there is a complete series of metatarsals, as represented in fig. 1, plate 6, except the first one, or that belonging to the inner side of the foot.

The middle metatarsal bone is the shortest of the outer four, but it is much more robust in its proportions transversely and vertically, in accordance with the great size and strength of the middle toe. Its shaft is quadrate, but is so short as to appear to be formed simply by the conjunction of the carpal and phalangeal extremities. The latter extremity is composed of three vertically convex lobes of which the median one is three and a quarter inches in depth. The carpal articular surface extends the entire depth of the corresponding extremity, and is quadrate and moderately concave. The articulation for the base of the second metatarsal bone, is a convex, oval surface, supported at the upper angle upon a prominent tuberosity. In a corresponding position, externally there is a rounded concave surface for articulation with the base of the third metatarsal bone.

The last metatarsal bone of the left foot presents a remarkable variation from that of the one figured; the interval between the shaft and long basal process being filled up, so that the bone is, in this specimen, a thick triangular plate with the carpal and fourth metatarsal articular surfaces placed on each side of its inner angle.

The measurement in length of the four metatarsals represented, is 3 inches for the second, $2\frac{1}{2}$ for the third, $4\frac{1}{2}$ for the fourth, and 5 for the fifth.

Besides the bones mentioned, the collection of Prof. Tuomey contains an atlas, axis, and three other cervical vertebræ; fragments of ribs and dorsal and lumbar vertebræ; six caudal vertebræ; one calcaneum, one astragalus, one cuneiform, and two cuboid bones; a first and second median phalanx of the hind foot, co-ossified as described in the memoir above mentioned, and a first median phalanx isolated; a first and second phalanx of the fourth toe; two median metacarpals, one fifth metacarpal, and the first and second phalanges of the median and fourth toes of the fore foot.

Mingled with these remains of the *Megalonyx*, there was a humerus of a large wolf, and the same bone of a species of deer.

REFERENCE TO PLATE 6.

Fig. 1. The second to the fifth metatarsal bone inclusive of the right hind foot of *Megalonyx Jeffersonii*, commencing from the right d, b, c, a. One half the size of nature.

REFERENCE TO PLATES IV, V, VI.

Plate IV. Fig. 1. Skull of *Trichecus rosmarus fossilis*, from the coast of New Jersey; reduced one half. Fig. 2. Under view of a facial fragment of the skull of *Trichecus rosmarus fossilis*, also found on the coast of New Jersey; reduced one half.

Plate V. Fig. 1. Under view of the same specimen represented in plate IV, figure 1; reduced one half.

Fig. 2. Tooth of *Cochliodus nitidus*; natural size. Figs. 3—16. Teeth of *Cochliodus occidentalis*. Fig. 17. Tooth of *Cochliodus latus*.

Fig. 18. Tooth of *Helodus gibbus*.

Fig. 19. Tooth of *Chomatodus venustus*, upper view; enlarged three diameters. Fig. 20. Profile section of the tooth at the middle; three diameters. Fig. 21. Profile section at one side; three diameters. Fig. 22. Tooth of *Chomatodus obscurus*; natural size. Fig. 23. Profile section of the same tooth.

Figs. 24 and 25. Posterior and anterior view of the portion of a tooth of *Palaeobatis insignis*; enlarged two diameters. Fig. 26. Profile section of the same tooth; enlarged four diameters.

Figs. 27 and 28. Internal and external view of the tooth of *Ctenoptychius digitatus*; natural size. Fig. 29. Profile section of the same tooth.

Fig. 30. A flat pointed bone (?), found in company with the preceding teeth; in the carboniferous limestone of Illinois.

Plate VI. Fig. 1, d, c, b, a. The second to the fifth metatarsals, of the right hind foot of *Megalonyx Jeffersonii*; reduced one half.

Figs. 2, 3. Superior and inferior molar teeth of the right side, of *Dicotyles compressus*. Figs. 4 and 5, superior first and second incisors. Figs. 6 and 7, inferior first and second incisors.

Fig. 8. Left upper maxillary bone of *Saurocephalus lanciformis*. Fig. 9. Tooth of do.; magnified three diameters. Figs. 10, 11. Transverse sectional outlines of the crown and fang; three diameters. Fig. 12. Left maxillary (a,) and premaxillary (b,) of *S. Leanus*. Fig. 13. Inner view of the same specimen. Fig. 14. Left dental bone of *S. Leanus*. Fig. 15. Outline of a superior tooth of do.; magnified four diameters.