A Cranium of Castoroides Found at Greenfield, Ind.

By Joseph Moore.

Castoroides has been correctly represented as decidedly the greatest rodent, recent or fossil. This Greenfield cranium, with the nasals and premaxillary restored, would measure a foot and an inch in length. Compare this with the heads of beavers and ground hogs, the largest rodents with which we are familiar. Even the great capybara of South America is quite dwarfed in the comparison.

The scarcity of Castoroides remains and the interest which for various reasons attaches to them make every considerable fragment of them worthy of mention. So far as relates to material for study, Indiana has furnished far more than any other State. On this point, and for further details, I refer the reader to a detailed report of the Randolph County skeleton in the Journal of the Cincinnati Society of Natural History for October, 1890, and also to the American Geologist, Vol. XII, August, 1893. In the latter, mere mention is made of the cranium now under consideration. At that time it was the property of Dr. M. M. Adams, of Greenfield.

To said Dr. Adams I am greatly indebted for the transfer of the same to the Earlham College museum.

Little is known of its history save that it was found, years since, by some one who was digging or grading in Greenfield or vicinity.

It is the cranium of a larger representative of the species than the Randolph find, as described in the American Geologist and in the Cincinnati Journal. Although the thin pterygoid blades are badly broken away, still that characteristic feature of the double posterior nares is clearly shown.. This is especially noteworthy as it pertains to no other known species, fossil or recent.

This giant beaver-like rodent occupied our marshes and streams of quaternary times in company with the mastodon and mammoth, and probably became extinct, largely through the agency of prehistoric man, somewhat as our modern beaver appears to be going to-day.

The two plates, with explanations, which accompany this paper, will give a better idea of the dimensions and also of a few anatomical details.

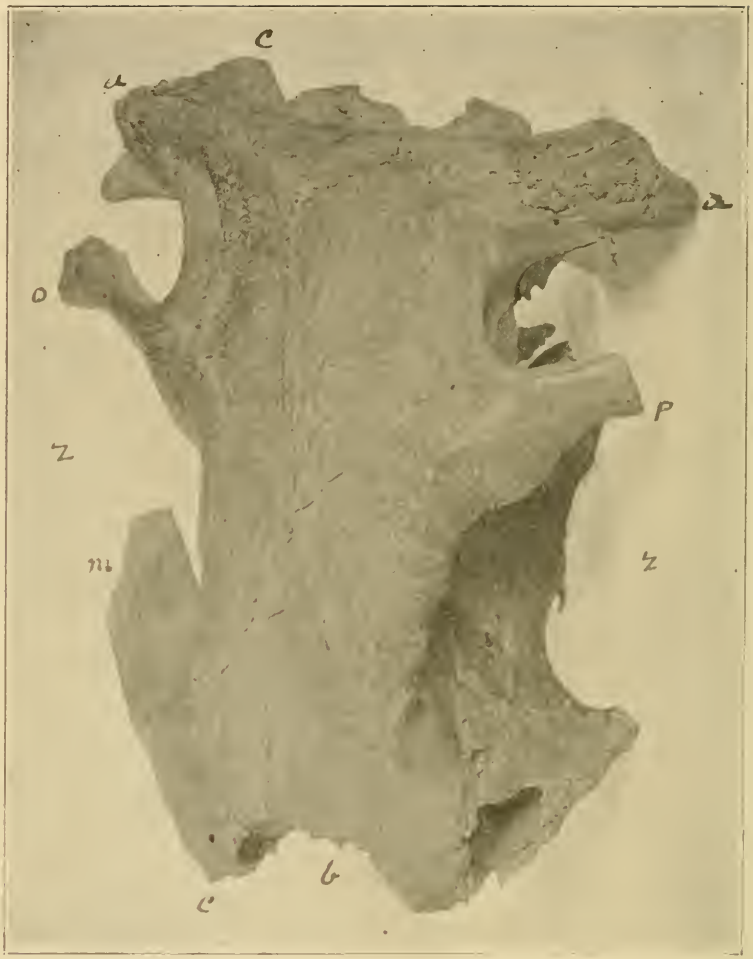

PLATE 1.—FRONT AND UPPER VIEW.

From *c* to *c*, 9.25 inches.
From *a* to *a*, 7 inches.
From *o* to *p*, 7.6 inches.
From *z* to *z*, or from outer to outer of zygomatic arches, if restored, about 8.5 inches.
m.—Malar process to which anterior of zygoma was attached.
o.—Temporal process to which posterior of zygoma was attached.
b.—The border from which nasals were broken away.

PLATE II —Posterior View—Also Under Surface, Much Foreshortened.

pp. Pterygoid fossæ, caused by an inward bending of two thin, blade-like processes, making a double partition, thus closing up the middle of the postorior nares dividing it into an upper and a lower.

s. A straw entering the upper posterior nares.

t. A straw inserted in lower posterior nares.

oo. Outer to outer margins of occipital condyles, distance 2.6 inches.

gg. The four upper grinders, right side. Length of the series, *g* to *g*, 3.9 inches.

mm. Width of palate posteriorly, 2 inches. Lateral diameter of foramen magnum, 1.2 inches.