


1914

Note on the Dentition of "Amphicyon Amnicola," a Gigantic Fossil Dog

H. J. Cook

University of Nebraska - Lincoln

Follow this and additional works at: <https://digitalcommons.unl.edu/conservationsurvey>

 Part of the [Geology Commons](#), [Geomorphology Commons](#), [Hydrology Commons](#), [Paleontology Commons](#), [Sedimentology Commons](#), [Soil Science Commons](#), and the [Stratigraphy Commons](#)

Cook, H. J., "Note on the Dentition of "Amphicyon Amnicola," a Gigantic Fossil Dog" (1914). *Conservation and Survey Division*. 331. <https://digitalcommons.unl.edu/conservationsurvey/331>

This Article is brought to you for free and open access by the Natural Resources, School of at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Conservation and Survey Division by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

NEBRASKA GEOLOGICAL SURVEY

VOLUME 7, PART 10

NOTE ON THE DENTITION OF AMPHICYON AMNICOLA.
A GIGANTIC FOSSIL DOG

BY HAROLD J. COOK

The species, *Amphicyon amnicola*, was founded by Matthew and Cook on a left lower jaw from the Snake Creek beds, lower Pliocene, in Sioux County, Nebraska. The writer recently secured a second specimen in the same horizon, about one hundred yards from the spot where the original type was secured, six years previously. This specimen throws additional light upon the dentition of the species.

In the type specimen of *A. amnicola*, the teeth were badly worn, so that the cusp arrangement could not be clearly told in M_1 and M_2 . The present specimen is No. HC300, collection of the writer. M_1 is very like that in *Daphcnodon superbus*, but relatively, as well as actually, more robust; the metaconid is proportionally smaller, the hypoconid larger, and the entoconid reduced. M_2 has three well-developed bunodont cusps, the two anterior situated transversely, and the third posterior cusp forming the apex of a right-angled triangle with the other two. M_3 was quite large, and had two roots.

The molars are very robust in proportion to the premolars. P_4 is relatively small. In form, it is very like that of *D. superbus*, but the crown is lower, and the posterior cingulum is not developed. From this point forward, the jaw in the type of *A. amnicola* was water-worn, and broken off, so that little could be told about it. In the present specimen, P_3 is absent, but the alveolus indicates a tooth somewhat smaller than P_4 . It has two roots, and there was a space, not over two millimeters, between it and P_4 .

In front of P_3 is a diastema 14 mm. long. P_2 has two roots, and is relatively small. In front of this is another space 2 mm. long. P_1 , as indicated by the alveolus, was nearly the size of P_2 . Between P_4 and the canine is a diastema 11 mm. long. Though the jaw is broken off, enough is present to indicate an immense canine, whose greatest anteroposterior diameter is 30 mm. below the alveolar border. The large third molar is a more primitive type than that found in *Daphcnodon superbus*. But in the more robust and primitive species, *D. periculosus*, from the lower Miocene, we find a type which is more nearly on the ancestral line of the present specimen.

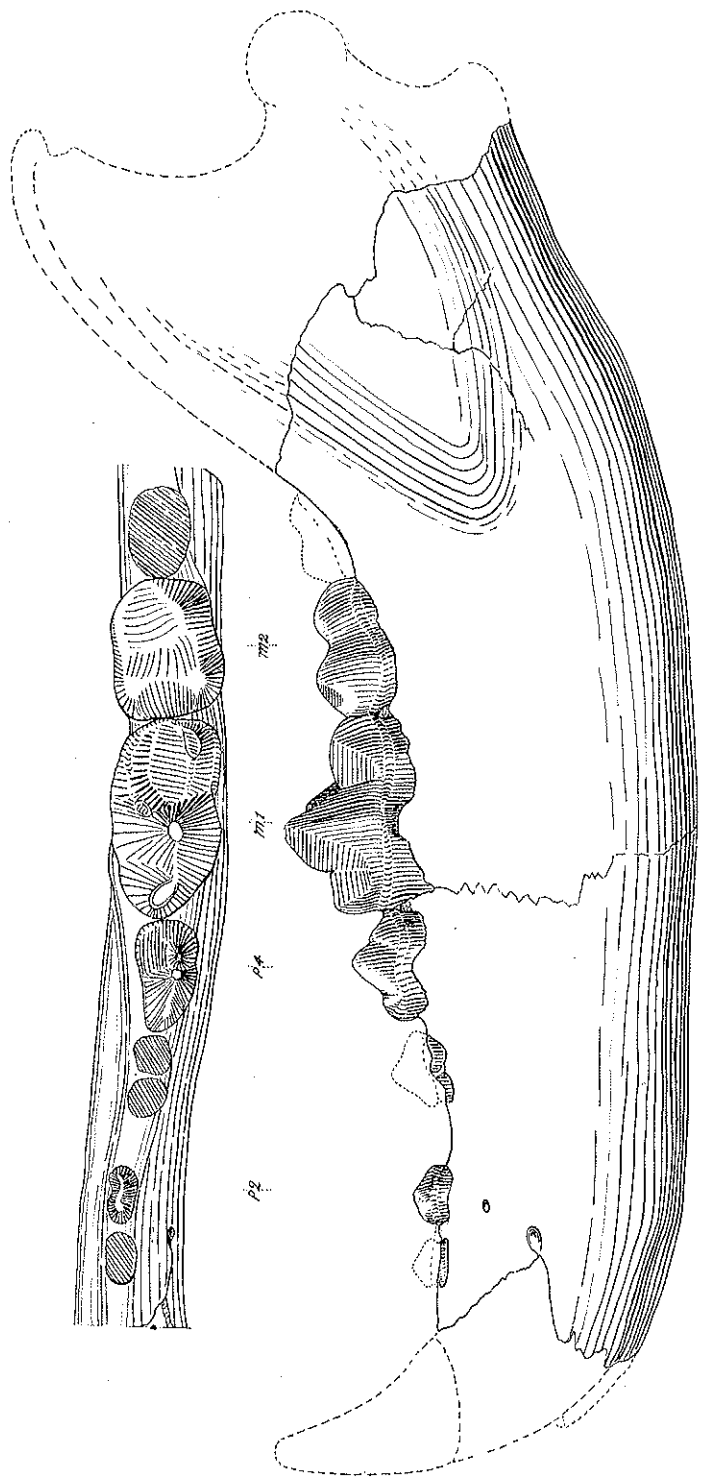
This species is the largest of the known dogs, for the length of the complete dental series is nearly 200 mm. However, according to material recently secured by Professor Sinclair of Princeton University, there is a much larger and closely related species, in these beds, and it is now under study.

MEASUREMENTS OF AMPHICYON AMNICOLA.

P ₄ -M ₃ —length	108	mm.
M ₁ , —anteroposterior	39	
M ₁ , —transverse width of heel.....	19	
M ₂ , —anteroposterior diameter	28	
M ₂ , —transverse	20.5	
P ₄ —anteroposterior	22.5	
P ₄ —transverse	11	
P ₂ , —anteroposterior	11	
P ₂ , —transverse	5	
Depth of jaw below M ₁	59	

Agate, Nebraska
November 20, 1914.

Distributed January 10, 1915



AMPHICYON AMNICOLA
Side and crown view of left jaw. x 2/3.