

## A FOSSIL RACCOON FROM A CALIFORNIA PLEISTOCENE CAVE DEPOSIT.

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While engaged in the work of cataloguing fossil vertebrate material in the United States National Museum, the writer recently brought to light a small collection of fossils from "Cave Bear" Cave, McCloud River, California, in which were some fragmentary bones and well-preserved upper and lower jaws of an apparently new species of *Procyon*, which is described below. The remainder of the lot consists principally of limb bones and vertebrae of a very large carnivore, probably a species of *Amphicyon*. These last-mentioned bones are comparatively free from matrix, being only lightly coated with a reddish deposit, characteristic of the decomposition of limestone, but the bones and teeth of the *Procyon* specimen were heavily incrustated with stalactitic and crystalline calcite, suggesting that they may have come from a different part of the cave. The specimens, however, are probably contemporary and of Pleistocene age.

This interesting little collection was procured and presented to the Museum by Mr. L. Stone, in 1881.

### PROCYON SIMUS, new species.

The type specimen (Cat. No. 2634, U.S.N.M.) represents an adult male, as indicated by the relatively large canines, and consists of both jaws, containing a complete series of upper and lower teeth, a portion of the palate, both otic bullae, and a few other skull fragments. Associated with it and probably belonging to the same individual are the distal half of a humerus and the nearly complete half of a pelvis.

This species most closely resembles the California variety of the living *Procyon lotor*, with which it is here compared, but besides its somewhat greater size the following important differences are observable:

(1) The lower jaw has relatively a much greater depth, especially anteriorly, the molar premolar series of teeth standing at a relatively

higher elevation above the base of the canine. (2) Both upper and lower canines are comparatively larger, straighter, and placed more nearly vertical in the jaw. This, together with (3) the relatively wider separation, especially of the upper canines, and (4) the somewhat more prominent and more squarely set incisors, gives to the muzzle a massive and more pug-nosed appearance than is observed in *P. lotor*.

The second molars, upper and lower, are relatively larger, and the premolars are more closely crowded than is usual in the specimens of *P. lotor* examined, but these differences are perhaps not more marked than would be seen in the extreme of individual variation in this direction.

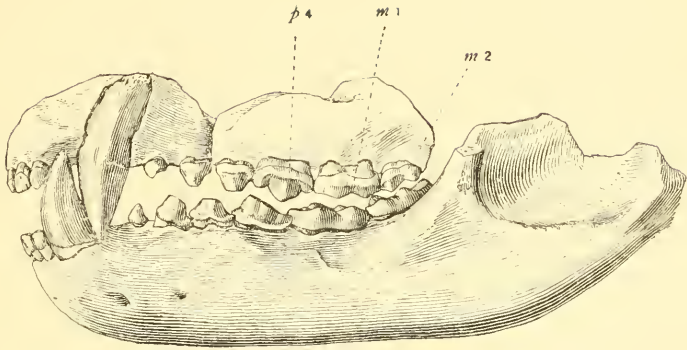
The following is a table of comparative measurements of the type specimen and an adult male of *P. lotor* from California. The two specimens represent as nearly as possible individuals of equal age, as indicated by a like degree of wear in the teeth.

Measurements.	<i>P. simus</i>	<i>P. lotor</i>
	(No. 2634, U.S.N.M.).	(No. 70948, U.S.N.M.).
	<i>mm.</i>	<i>mm.</i>
Total length of lower jaw .....	90.0	80.0
Total length of lower dental series .....	53.5	51.0
Depth of jaw at $m_1$ .....	16.0	12.0
Depth of jaw at $p_2$ .....	17.5	13.0
Width across upper incisors .....	18.5	16.0
Total width across upper canines .....	31.5	25.5
Anteroposterior diameter of canine at base .....	8.0	6.3
Diameters of $p_4$ :		
Anteroposterior .....	8.5	8.5
Transverse .....	8.5	8.0
Diameters of $m_1$ :		
Anteroposterior .....	9.0	9.0
Transverse .....	10.0	9.5
Diameters of $m_2$ :		
Anteroposterior .....	7.0	6.0
Transverse .....	8.5	8.0

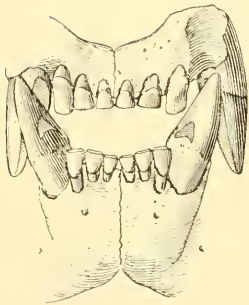
#### EXPLANATION OF PLATE XII.

##### *Procyon simus.*

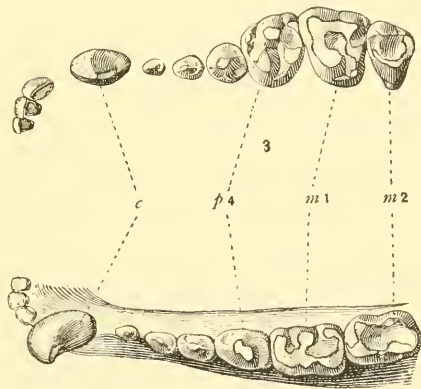
- FIG. 1. Upper and lower jaws, side view.
2. Upper and lower jaws, anterior view.
3. Superior dentition, crown view.
4. Inferior dentition, crown view.



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PROCYON SIMUS, NEW SPECIES.

FOR EXPLANATION OF PLATE SEE PAGE 554.

