

Fig. 9. *Eluropus fovealis*. No. 18385, type. Lower jaw, outer and crown view of teeth. Natural size.

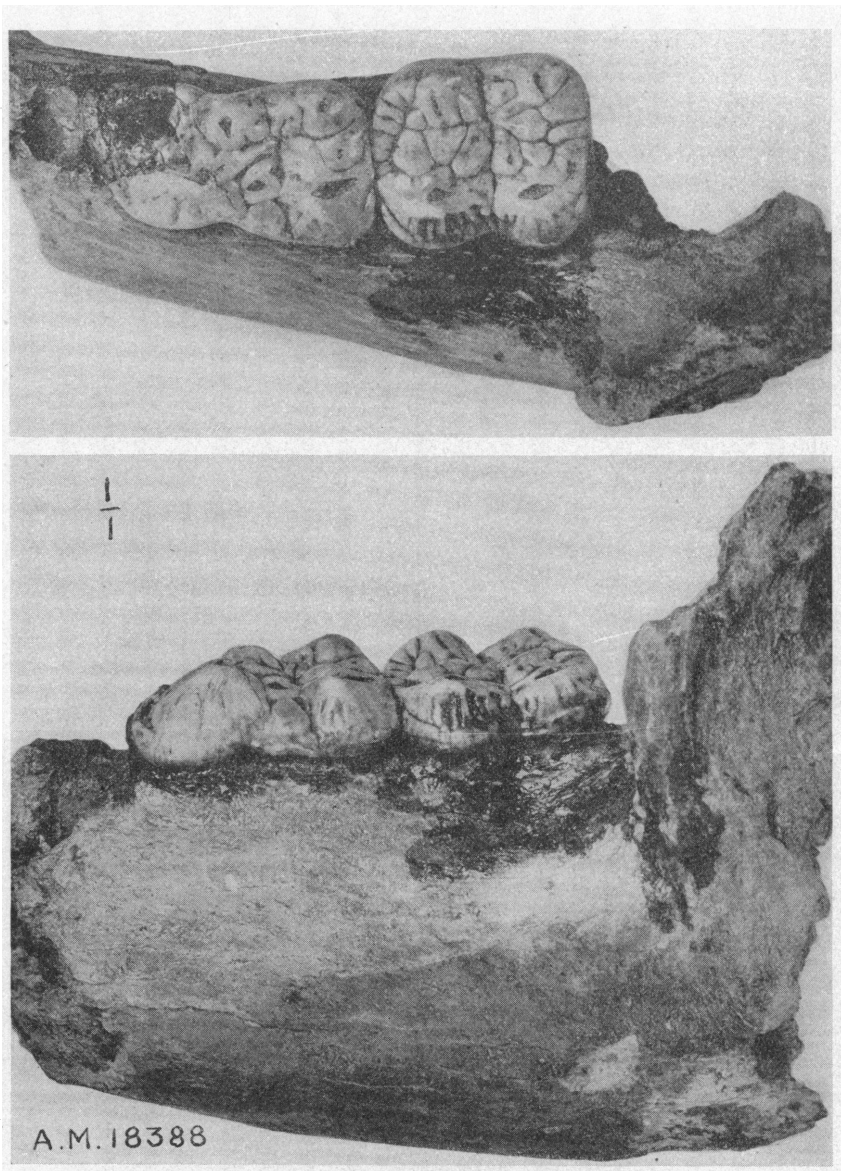


Fig. 10. *Eluopus fovealis*. No. 18388. Lower jaw, outer and top views. Natural size.

Ursidæ

*Æluropus*¹ *fovealis*, new species

TYPE.—No. 18385, right lower jaw with p_4 to m_3 , also left m_3 of the same individual.

DISTINCTIVE CHARACTERS.—The teeth resemble those of *Æ. melanoleucus* as figured by Lankester, 1901, except in the following particulars: the protocone of p_4 is distinctly higher than the anterior and posterior cusps; m_1 retains more of the normal canassial construction, the anterior end being less quadrate, protoconid larger, paraconid more advanced and the whole tooth is relatively larger; m_2 and m_3 are broader, though not longer. Bardenfleth's figure in 1913 of the teeth of a specimen also in the British Museum agrees much more closely in proportions with our specimen and, if both are accurate, would suggest that the differences noted above are individual rather than specific. However, as it seems unlikely that a species of the Carnivora would persist unchanged from the Pliocene to the present day, it appears better to regard the species provisionally as distinct. Three other specimens, Nos. 18386–8, are referred to the species. Two of them show the unworn m_1 in broken lower jaws. The third is a lower jaw with m_{1-2} complete, so much larger and more robust than the type that we hesitate to include it under the same species.

The affinities of *Æluropus* appear to be with *Hyænarctos*, as has been observed by Lydekker,² Winge³ and other writers. Its systematic position appears to be clearly in the family Ursidæ,⁴ although of a distinct subfamily from the true bears. Bardenfleth⁵ has presented the evidence for this view very clearly. The occurrence of *Æluropus* almost completely modernized in the Pliocene, if these deposits are in fact Pliocene, contemporary, or nearly so, with *Hyænarctos*, shows that it cannot be a direct descendant, although *Hyænarctos* seems to be in general structurally ancestral.

Lydekker⁶ has reported a species of *Hyænarctos* from the collection of Chinese fossils described by Owen. Schlosser⁷ gives reasons (not very convincing) for regarding it as Pleistocene and notes an incisor and m_3 in the Haberer collection at Munich, but doubts their pertinence to this genus. They approach the amphicyons, differing from *Hyænarctos* in quite an opposite sense from the present species.

¹*Æluropus* = *Æluropoda*, for the purists.

²Lydekker, R. 1896. 'Geographical History of Mammals,' p. 321.

³Winge, H. 1896. 'Jordf. og. nulev. Rovdyr (Carnivora) fra Lagoa Santa,' p. 62. These are probably by no means the earliest authorities, for the comparison is too obvious to have escaped notice. It is at least implied in Flower's arrangement of the genera in the 'Catalogue of Mammals, Mus. Roy. Coll. Surgeons.'

⁴As placed by most authors. Osborn in the 'Age of Mammals,' following Lankester's authority, places it in the Procyonidæ.

⁵Bardenfleth, K. S. 1913. 'On the Systematic Position of *Æluropus melanoleucus*.' *Mindesk. f. Japetas Steenstrup*, København.

⁶Lydekker, R. 1885. 'Cat. Foss. Mam. Brit. Mus.,' Part I, p. 157, fig. 23.

⁷Schlosser, M. 1903. 'Fossile Säugethiere Chinas,' p. 23.

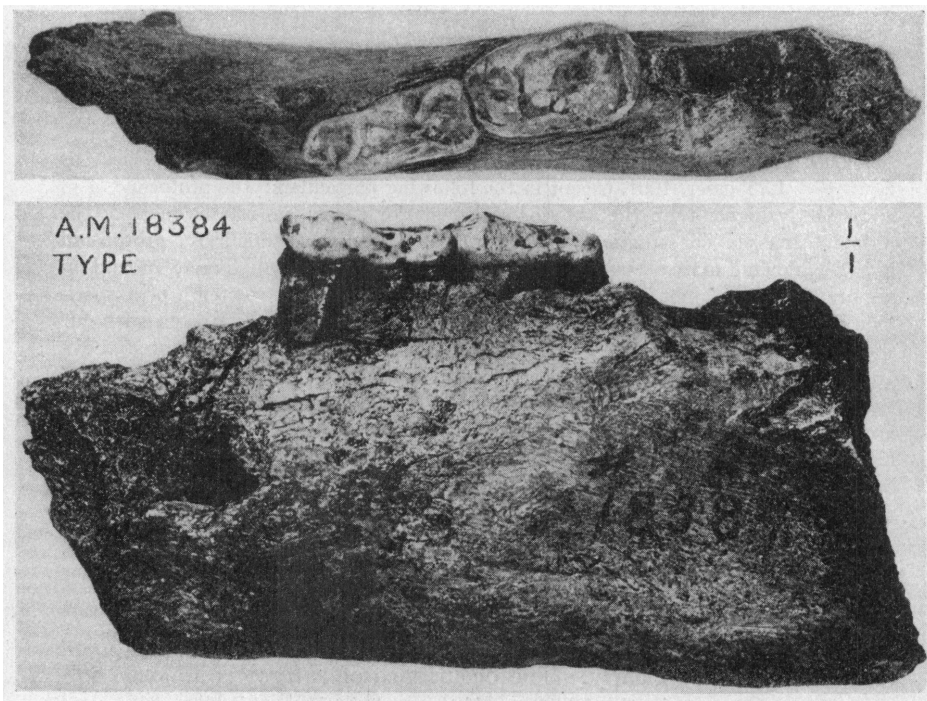


Fig. 11. *Ursus kokeni*. No. 18384, type. Lower jaw, outer and top views. Natural size.

***Ursus kokeni*, new species**

TYPE.—No. 18384, a lower jaw with m_{1-2} and adjacent alveoli.

DISTINCTIVE CHARACTERS.—Jaw very short and deep as in the sun-bear *U. malayanus*, but size large, comparable with *U. arctos*; m_1 narrow and long, lacking the metastylid cusp of *U. malayanus*; m_2 rather short and wide, wider posteriorly than anteriorly.

It is very likely that the molar figured by Koken as *U. aff. japonicus* is of this species.

***Arctonyx rostratus*, new species**

TYPE.—No. 18393, skull lacking the zygomatic arches and with damaged teeth.

PARATYPES.—Nos. 18394, skull, and 18382, 18383, lower jaws.

DISTINCTIVE CHARACTERS.—Length of skull, premaxillæ to condyles, 148 mm.; sagittal crest narrow, distinct; p_1^+ absent, p_2^+ larger than in *A. collaris* and more clearly two-rooted, the diastema behind p_2^+ greater than length of p_3^+ ; p_4^+ larger with inner cusp better developed and more antero-internal; m^1 larger, broader and more quadrate in form; auditory meatus and posttympanic process broad, massive and

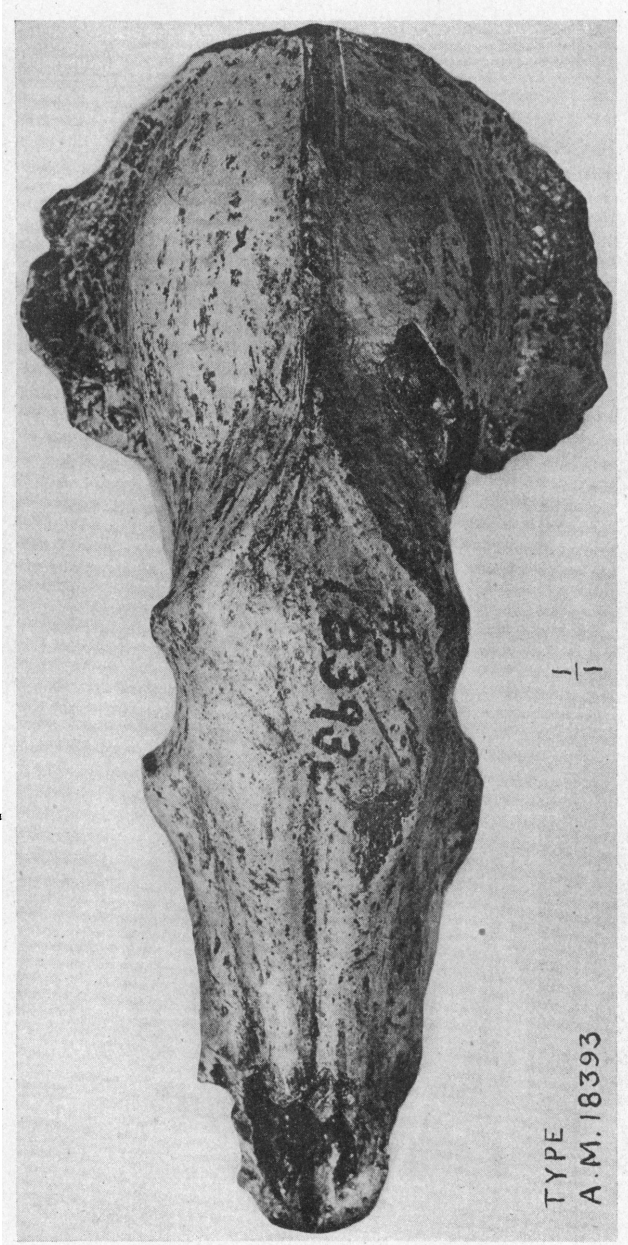


Fig. 12. *Arcomyia rostratus*. No. 18393. Type skull, top view. Natural size.

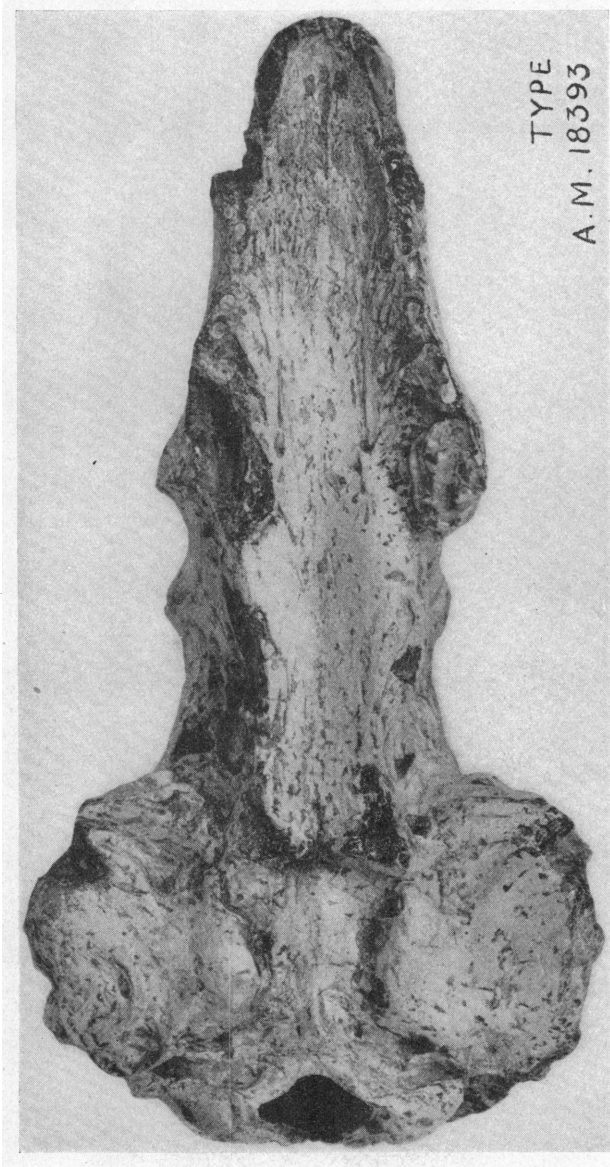


Fig. 13. *Arcatomyx rostratus*. Type skull, No. 18393, palatal view. Natural size.