

# FINDS OF PLEISTOCENE HORSES (EQUUS)

## ARIZONA

(Map 9)

*Dragoon Mountains, Cochise County* (1)—In December 1920, H. James, writing from Bisbee, sent to the Smithsonian Institution an upper hindmost silicified molar of a horse, said to have been found in the Dragoon Mountains. The height was about 50 mm.; the length along the oblique grinding face, 28.2 mm. The species has not been determined.

Under this number must be mentioned teeth of horses collected in 1922 by Dr. J. W. Gidley and listed in a preliminary report (Prof. Pap. 131, U. S. Geol. Surv., p. 119). At a locality near St. David and Curtis Flats, about 12.5 miles southeast from Benson, in section 25, township 18 south, range 21 west, Gidley obtained remains of an undetermined species of *Equus*. These have not, up to the present, been described. The deposits are regarded by him as belonging to the Upper Pliocene. The present writer refers them provisionally to the Pleistocene of the Nebraskan stage.

At another locality about 2.5 miles south of Benson, in section 22, township 17 south, range 20 east, Gidley made another collection in which are contained equine remains referred to *Pliohippus* and *Hipparion* of as yet undetermined and unpublished species. This collection is credited to the Middle or Upper Pliocene. As in the other cases the writer assigns them provisionally to the Nebraskan stage of the Pleistocene.

*Sonoita, Santa Cruz County* (2)—In September 1919, Edward W. Hummel, of Sonoita, sent to the U. S. National Museum for identification 2 teeth of a horse found in a well on his farm (Eldorado Ranch), 25 miles north of Sonoita. With these teeth were others much worn which appeared to belong to a camel. One horse tooth appeared to be the fourth upper premolar. The height of the tooth was 48 mm.; the length of the crown, at half its height, 21.5 mm.; the width, 18.5 mm.; the protocone, 9.8 mm. A molar, probably the second, had a height of 63 mm. The length of the crown was 21 mm.; the protocone 10.5 mm. The outer face of the tooth was broken away, so that the width could not be exactly determined. It will be seen that the horse was a small one. Possibly it belonged to *Equus tau*, described by Cope from the valley of Mexico.

*Comobabi, Pima County* (3)—In Kirk Bryan's paper on the Papago Country (Bull. U. S. Geol. Surv. 730, 1923, pp. 19-139, with large map and illustrations) on his page 31, he noted the finding of a phalanx of a horse (*Equus* sp. indet.) and of a deer (*Odocoileus* sp. indet.) about a mile east of Comobabi. This place has approximately the longitude  $111^{\circ} 45'$  and the latitude  $32^{\circ} 05'$ . At this locality is a bed of gravel about 10 feet thick which lies about 30 feet above the present stream. The bones were found in the lower 4 feet of this gravel (p. 135).

*Ligurta, Yuma County* (4)—In 1918, a first median phalanx of an undetermined species of *Equus* was found near Ligurta by a member of the U. S. Geological Survey and transmitted to the U. S. National Museum. This,