

of the geology of the bluffs along Columbia River, named White Bluffs, and of the vertebrate fossils which they collected. Two towns were mentioned near which the collections were made, Hanford and Ringold. The list of species found at the locality will be found on the pages devoted to the geology of the region. An equine calcaneum was found and referred to *Equus* or *Pliohippus*.

One or two miles north of Ringold school were found upper and lower cheek teeth of *Equus*, but the species was not determined. These teeth were again mentioned by Merriam on page 528 of the volume cited and compared with those of *E. idahoensis*. Some differences were found between them. The authors quoted were somewhat in doubt regarding the geological age of the deposits which afforded the fossils. It was thought that they might belong either to the Pliocene or to the Pleistocene. The present writer suggests that a reference of the fossils and the deposits to the Nebraskan stage would meet the requirements of the case.

*Wenatchee, Chelan County* (5)—In the U. S. National Museum is a small collection of bones and teeth which were secured near this place, probably in 1900, by a settler named Parish, on his place in the southwest quarter of section 23, township 23 north, range 19 east. The bones were found at a depth of 16 feet, of which 15 feet was composed of angular and rounded boulders partly cemented by calcite.

The genus *Equus* is represented by two lower molars which are not distinguishable from those of *E. niobrarensis*. The associated fossils are listed on a succeeding page where the geology of the region is discussed.

*Puyallup, Pierce County* (6)—In her paper of 1914 on the Pleistocene of Oregon (Bull. Univ. Oregon, vol. XII, No. 2, p. 16), Mrs. McCornack has reported a tooth of a horse from Puyallup. This tooth belongs to the collection of the University of Oregon and has the catalogue number 27. Through Mrs. McCornack's solicitation, it has been sent to the writer, with other horse teeth from Oregon. This tooth is an upper right true molar, either the first or the second. It is well preserved and only moderately worn. The length of the grinding surface is 25 mm.; the width is the same; and the protocone is 13 mm. long. This tooth evidently belongs to *Equus laurentius*, a species which has been found in Iowa, Kansas, Oklahoma, Colorado and the Willamette Valley in Oregon.

There are no exact details preserved regarding the location, the depth and the kind of deposit in which the tooth was found. In the vicinity of Puyallup there are laid down on Bretz's map (Bull. Wash. Geol. Surv., No. 8, pl. xx) deposits of various epochs in the Pleistocene. There was present here after the Vashon glacial epoch a freshwater lake, but it is very improbable that the horse tooth was found in so young a deposit. It is probable that the tooth was buried in materials that were laid down about the time of the Admiralty sediments or earlier.

*Shoalwater Bay, Pacific County* (7)—In the U. S. National Museum is a fragment of a horse tooth, the outer half of the split crown, which was found somewhere around Shoalwater Bay, in Pacific County. It was figured and briefly described by Dr. Joseph Leidy in 1873 (Contrib. Ext. Fauna, p. 246, pl. xxxiii, fig. 19). It had been found in lignite beds and given by Dr. J. C.