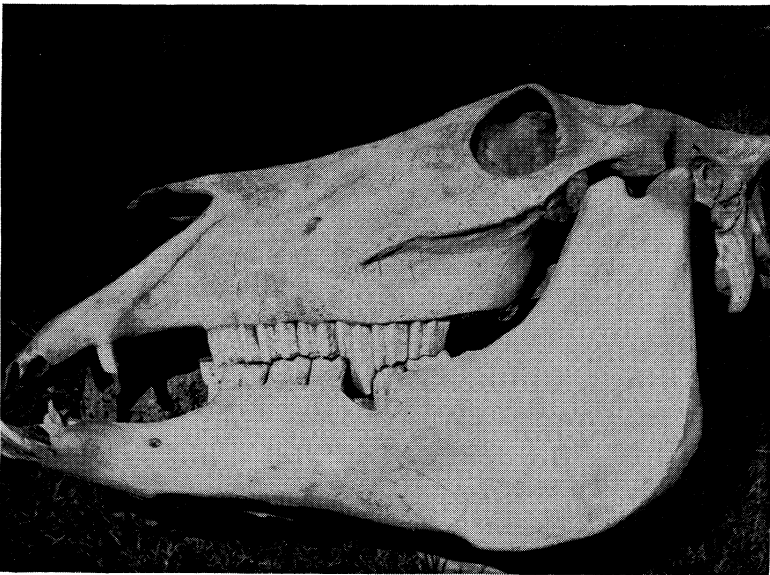


Abnormal Dentition in the Horse

Herbert Knutson

In 1929 Dr. E. L. Rippy presented the Biology Department of Southern Methodist University with several ungulate skulls found near Kerrville, Texas. The writer noticed that one male horse skull has the left maxillary first molar extremely elongated, projecting twenty-eight millimeters beyond the normal distance between the fourth premolar and the second molar in the form of a wedge. The corresponding first molar of the mandible was lost early in life, perhaps due to an injury, and only a small hole remains in the root region of the mandible; thus no opposition was afforded and the elongated tooth was not worn down normally. A depression in the mandible extends to a maximum depth of three millimeters along the ental margin and twenty-one millimeters along the ectal margin. Secondary bone has been



laid down below the depression on the ectal surface. Considerable wear is evident on the fourth premolar and the second molar of the mandible, and the latter is somewhat tilted into the space left by the vacant tooth. The maxillary second and third molars are abnormally long, becoming progressively longer toward the first molar while the second and third mandibular molars are correspondingly shorter than normal. Wear on the labial edge of the elongated first molar has exposed the anterior infundibulum throughout the entire length of the abnormal extension.

Occasionally an old horse may develop an elongated tooth (commonly called a "hard tooth") which wears off the opposing teeth and sometimes causes a sore jaw; however, the complete obliteration of a tooth and a deep notch in the jaw is apparently not often encountered. The ownership of the horse could not be traced in order to determine whether or not this defect produced any noticeable handicap to mastication. Bullet holes through the temporal fossa and temporal wing of the sphenoid indicate its fate, and the animal was apparently sixteen to twenty years of age when shot, so it may have been killed because of this defect.