A LARGE *BISON OCCIDENTALIS* FROM SOUTH DAKOTA

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ABSTRACT.—Data and dimensions pertaining to the horns and skull are recorded.

Recently, I had the privilege of examining the horns and part of the skull of an extraordinarily large specimen of *Bison occidentalis*. This favor was granted to me by the vendor of the specimen before it passed into the hands of the purchaser.

According to letters, a newspaper article, and interviews, the following information concerning this specimen seems to be reliable. It was found in 1960 in the bank of Spring Creek on the Noltz Ranch approximately one mile north and five miles east of Herreid, Campbell County, South Dakota. The specimen (FIG. 1) is well-preserved and solid. Other than missing parts, evidence of damage seems to be limited to scouring and abrasion of ridges and projections before final deposition in black silt.

Size combined with the upward and backward sweep of the horns to well-above the plane of the frontals and posterior to the plane of the occipital certainly indicates that this specimen belongs to the "occidentalis" group. The specimen can be described as a set of unusually large horns on a larger than average skull of *Bison occidentalis*. Considering the pertinent features involved (configuration, proportion, actual size, but not individual age, sexual dimorphism, and geological age — criteria set forth by Skinner and Kaisen in 1947), I have identified this specimen as *Bison occidentalis*.

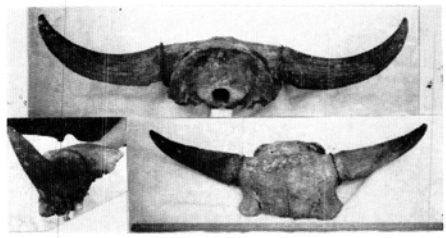

FIGURE 1.—Three views of the specimen of *Bison occidentalis* found northeast of Herreid, South Dakota.

Were it not for the conelike nature of the horns on this specimen one might be misled by certain dimensions to describe the specimen as a set of smaller (except for the great span) than average horns on a larger than average skull of *Bison preoccidentalis*. I mention this possibility because I think this specimen shows that we are inexorably approaching a dilemma in identification similar to that which exists between *Bison bison* and *Bison occidentalis*.

Dimensions of the specimen are presented in TABLE 1. These measurements were determined by following, as closely as possible, the methods for measuring bison skulls utilized by Skinner and Kaisen.

LITERATURE CITED

SKINNER, M. F., and O. C. KAISEN. 1947. The fossil *Bison* of Alaska and preliminary revision of the genus. Bull. Amer. Mus. Nat. His., 89 (3) :123-256.

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TABLE 1.—Dimensions (in millimeters) of part of a skull of *Bison occidentalis* from the vicinity of Herreid, Campbell County, South Dakota. The numbering of the items follows the arrangement used by Skinner and Kaisen; lettered items are measurements introduced by me.

1.	Spread of horn-cores, tip to tip	925
2.	Greatest spread of cores on outside curve	933
3.	Core length on upper curve, tip to burr	350
4.	Length of core on lower curve, tip to burr	391
5.	Length, tip of core to upper base at burr	315
6.	Vertical diameter of core	112
7.	Circumference of core at base	320
8.	Greatest width of auditory openings	278+
9.	Width of condyles	129+
10.	Depth, occipital crest to top of foramen magnum:	
	a. from point at upper edge of crest	126
	b. from point at lower edge of crest	104
11.	Depth, occipital crest to lower border of foramen magnum:	
	a. from point at upper edge of crest	168
	b. from point at lower edge of crest	146
12.	Transverse diameter of core	112
13.	Width between bases of horn cores	278
	a. Width between burrs of horn cores at same point	336
14.	Width of cranium between cores and orbits	317
15.	Greatest postorbital width	358
21.	Angle of posterior divergence of horn-core	15°
22.	Angle of proximal horn-core depression	25°