DISCUSSION

OCCURRENCE OF THE PLIOCENE ANTELOPE, ILINGOCEROS, IN NEVADA

UNTIL recently the only known occurrence of the peculiar twisted-horn antelope, *Ilingoceros,* was that recorded by Dr. J. C. Merriam[1] from the Thousand Creek Pliocene deposits of northwestern Nevada. During the past 30 or more years much interest has been manifested by students of fossil mammals in the paleontological history of the Antilocapridae. The family has come to be recognized as having a unique position in American animal life. Thus, its representation to-day by a single genus, *Antilocapra,* stands in decided contrast to the great diversity of type which characterized the family in former geologic time. The existence of many different kinds of antelopes in the past is exemplified by the several extinct genera in Pleistocene faunas, but even more so by the unusual and even bizarre creatures of the Pliocene.

Although the extended studies which have been conducted on the later Tertiary faunas of western North America and their correlation have brought to light new genera of antelopes, it is rather odd that no new occurrences of *Ilingoceros* have been found.

Pliocene localities at Smith Creek in central Nevada, yielding fossil mammalian remains, were discovered by Stock and Furlong about 1928. Later, in 1931 and 1934, summer field parties from the California Institute of Technology conducted further explorations in this region and obtained additional materials. No complete survey has been made as yet of the fossil assemblage. R. W. Wilson[2] published a report on the rodents in the fauna, and on the basis of this study correlated the Smith Creek fauna with that from the middle Pliocene Thousand Creek beds.

A recent survey of the larger fossil mammals from the Smith Creek Pliocene in the paleontological collections of the California Institute of Technology brought to light a fragment of a frontal bone with the basal part of the horncore and roof of the orbit. On the basis of size, proportions and morphological characters shown by this specimen, No. 795, C. I. T. Coll., there can be no doubt that it belongs to *Ilingoceros.* Associated limb elements confirm this conclusion. Hence the geographic range of the genus is extended, at least locally in what is now the Great Basin region, and the identification lends further support to Wilson's view that the Smith Creek and Thousand Creek faunas are closely related in time.

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[1] J. C. Merriam, *Univ. Calif. Publ., Bull. Dept. Geol.,* Vol. 5, No. 22, pp. 319–330, 7 figs., 1910.

[2] R. W. Wilson, *Carnegie Inst. Wash. Publ.* No. 473, pp. 15–34, 2 pls., 1936; *Carnegie Inst. Wash. Publ.* No. 487, pp. 21–73, 1937.

HALOGETON GLOMERATUS, POISONOUS TO SHEEP

Halogeton glomeratus (Chenopodiaceae) has been reported to have established itself in northeastern Nevada in 1935 and has spread rapidly over the range.

In an area a few miles south of Wells, Nevada, there have been heavy sheep losses during the past two years which have been suspected to have been due to this plant.

Examination of a sample of the plants from the area on which poisoning has recently occurred has disclosed the presence of large quantities of oxalates, which has justified the suspicion that this plant was the active agent.

Chemical analysis showed the dried sample to contain total oxalates equivalent to 19 per cent. anhydrous oxalic acid. Oxalates in water-soluble form were found equivalent to 11 per cent. anhydrous oxalic acid.

The presence of calcium oxalate crystals may be easily demonstrated by shaking the dry ground plant with water when the calcium oxalate may be seen at the bottom of the liquid, the greater part of the plant tissue floating to the surface.

The presence of several other crystalline compounds was observed with the compound crystals of calcium oxalate. These will be investigated further.

The occurrence of oxalates in members of the Chenopodiaceae is well known but in the quantities found in this plant, somewhat unusual. No mention has been found in the literature of the occurrence of oxalates in *Halogeton glomeratus* nor of possible poisonous properties to animals eating the plant.

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WAR WORK IN THE HIGH SCHOOLS

THE high schools of the country are now asked to train the boys and girls in a way never before attempted. Workers of all kinds are now in demand. Much of this work requires thought and skill. They must acquire the ability to think straight and to work steadily and accurately in the shortest possible time. Industry, agriculture, business and the armed forces are all in need of them.

Young people are asked to prepare immediately for one of five major needs. (1) The armed forces need men with practical technical training. An increase in the armed forces of approximately three million men is expected by the end of 1943 or early in 1944. The men needed most are those with specific