discovered in the state.[1] It was discovered in territory previously mapped as Morrison,[2] Comanchean or Jurassic. This evidence warrants placing the Purgatoire as the bottom member of the Cretaceous and assigning the bone-producing horizon (Morrison?) to the Jurassic.

The formation where the bones were found lies near the top of the valley wall, and is a dark brown gray-mottled shale which breaks out readily in somewhat cubical blocks. The same formation may be seen exposed in several places on both the east and west walls of West Carrizo Creek Canyon north of Kenton. In this canyon the Purgatoire and Dakota overlie the Morrison.

After some digging the fifth or sixth rib from the left side, two caudal vertebrae and various fragments were uncovered. The two vertebrae are unbroken and only slightly distorted. Excepting the absence of the head, the rib is in perfect condition. When uncovered, it was lying ventral side up and intact.

The work of excavation will be continued under the direction of the department of paleontology of the University of Oklahoma. A detailed study of the area will be made in order to determine the actual extent of the Jurassic in that part of the state. If it seems advisable, a new map showing the outcrops will be prepared.

The writer wishes to thank Mr. R. C. Tate, of Kenton, Oklahoma, who acted as guide while the party was in the area, and who so kindly pointed out the location of the bones.

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PEACH MOSAIC—A NEW VIRUS DISEASE

IN the course of field work for the phony peach eradication campaign, conducted jointly by the U. S. Department of Agriculture and state agencies, inspectors observed in certain peach orchards in Brown and in Callahan Counties, Texas, in July, 1931, characters that suggested the phony disease but that appeared to be different. Fresh specimens from these trees were sent to the writer for identification and study. They gave only negative results with the recently discovered laboratory test for the phony disease, which confirmed the fact that the symptoms were not typical for the latter disease. A striking character of this material was the appearance of the twigs. New growth was abnormal both in number and arrangement of branches, and internodes were in most cases abnormally short.

Inoculation experiments were performed on July 15 and 16, 1931, in which 56 peach nursery trees were grafted or budded with material from the Texas specimens. Although the graft and bud-shield unions were in most cases successful, the inoculated trees failed to develop pathological symptoms during the remainder of 1931. With the beginning of growth in the early spring of 1932, symptoms of a virus disease were at once apparent in the new shoots from all aerial parts of the inoculated trees and in new sucker growth from the roots. Internodes were short, buds in the leaf axils started into growth in profusion, leaf-blades displayed striking mosaic patterns and in many instances were small, narrow, irregular in outline and crinkled. Over 95 per cent. of the inoculated plants developed positive symptoms of a mosaic disease. The fact that inoculum from either the root or the shoot of the suspicious trees in the field communicated the disease indicates that infection is systemic. Experiments have been performed for determining whether the disease may be transmitted by juice, but they have not had time to mature. Experimental plants are isolated in a double-screened (wire and cloth) house and every precaution is taken to prevent accidental dissemination of the disease.

In view of the fact that the above-described characters appeared uniformly in all the successfully inoculated plants, the name *peach mosaic* is suggested for the new disease. Not only is peach mosaic interesting in that it constitutes a new member of the group of peach virus diseases, but it is thought to be the first positive, infectious mosaic to be recorded for the peach. Yellows, little peach, rosette and phony disease cause the development of a variety of pathological characters in twig and leaf, but none of them produce mosaic patterns in the leaves.

Only a few trees are known to be infected with peach mosaic at the present time. Forty-two cases were located by inspectors, scattered over three blocks of trees in an orchard in Brown County, and a few cases were seen in an orchard in Callahan County. The supposedly sparse population and limited distribution of peach mosaic would appear to present an ideal case for thorough survey supported by prompt eradication.

A detailed, illustrated description of the disease and the experiments that proved its infectious nature will appear in a forthcoming publication.

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A CORRECTION

I HAVE just received from Mr. Hoyt S. Gale, of Los Angeles, a statement of facts which enables me to make two small corrections in my note, "The

[1] Pierce Larkin, *Jour. of Geol.*, v. 18, 1910.
[2] E. P. Rothrock, *O. G. S. Bull.*, 34, 1925.