

"A Study of the Annual Recurrence of *Phytophthora infestans*," by I. E. Melhus.

"Fungous Gummosis of *Citrus* in California," by H. S. Fawcett.

C. L. SHEAR,  
Secretary-Treasurer

#### THE PALEONTOLOGICAL SOCIETY

THE fifth annual meeting of the Paleontological Society was held at Princeton, N. J., on Wednesday, December 31, 1913, and Thursday, January 1, 1914, in affiliation with the Geological Society of America. The meeting this year included a general session in which selected papers of interest to all members of the society were read, and special sessions dealing with vertebrate and invertebrate paleontology and paleobotany. Notable features of the meeting were first, the president's address by Dr. Charles D. Walcott on the Cambrian of western North America, and second a conference on the close of the Cretaceous and opening of Eocene time. In the latter the geological and paleontological evidence was presented by Messrs. F. H. Knowlton and T. W. Stanton, and recent discoveries in regard to late Cretaceous and early Eocene life were reported especially as a result of the American Museum expeditions under Messrs. Barnum Brown and Walter Granger.

A new Ungulate of very distinctive South American type was recorded by Dr. Matthew as additional evidence of affinity between North and South America in Lower Eocene times. The line of ancestry of the Uintatheres was recorded as traced into Basal or Paleocene times. A new fauna is described between the Puerco-Torrejon and Wasatch, to be known as the Clark Fork. Still more striking was the record of Mr. J. W. Gidley, of the U. S. National Museum, of the occurrence of a true eland *Taurotragus* in the Pleistocene cave of western Maryland. This discovery confirms the statement of J. C. Merriam of the occurrence of African antelopes in Virgin Valley, northern Nevada and links North America very closely to Asia in Pliocene times. Accompanying the eland was a peculiar species of African dog.

R. S. BASSLER,  
Secretary

#### SOCIETIES AND ACADEMIES

##### THE BIOLOGICAL SOCIETY OF WASHINGTON

THE 516th meeting of the society was held on November 15, 1913, Vice-president Paul Bartsch in the chair and 35 persons present.

F. V. Coville presented a communication on

"The Physiology of the Blueberry." His remarks were based on wide experience in greenhouse and outdoor culture of this plant. Three conditions are essential to its successful propagation: first, an acid soil; second, the presence of the micorrhizal fungus to enable the plant to obtain nitrogen, and third, the stimulating effect of cold on the twigs while they are dormant. The last is a condition of vital importance, associated as it is with the transformation of starch into sugar. As a result of this series of experiments, the commercial propagation of the blueberry is now possible. Very large berries have been developed, some of them from  $\frac{1}{2}$  inch to  $\frac{3}{4}$  inch in diameter. The various means of cultivation were explained and illustrated by means of numerous lantern slides.

W. C. Kendall, the second speaker announced on the program, was absent, and the chairman asked Dr. Leon J. Cole, of the University of Wisconsin, to address the society. He responded by giving an account of his experiments in breeding pigeons for the study of color inheritance.

Owing to lateness, the communication by Barton W. Evermann was postponed.

THE 517th meeting of the society was held on November 29, 1913, President E. W. Nelson in the chair and 63 persons present.

The meeting was devoted to a discussion of Parallel Development. A. D. Hopkins read a paper on "Parallelism in Morphological Characters and Physiological Characteristics in Scolytoid Beetles." He had made a special study of these beetles and his ideas of parallelism in nature were largely founded on evidence they have furnished. He defined the subject as follows:

"Parallelism in morphological characters and physiological characteristics in Scolytoid beetles relates to the occurrence of the same or similar elements of structure or the same kind of activity in two or more species, genera, subfamilies or families. Parallel species, genera and larger groups are those in which structure or habit is in many respects alike. Such species or groups may be closely allied or more or less widely separated. Universal parallelism relates to repeated or multiple origin, development and evolution of the same or similar inorganic or organic form or activity.

"This tendency towards parallel development appears to be in accordance with a fundamental principle or law of *parallelism in evolution*, under which the origin and evolution of the same form or activity, under the same or similar physical in-