

"The Physical History of the Upper Mississippi Valley During the Late Paleozoic," by Francis M. Van Tuyl.

"The Climatic History of Alaska, from a New Viewpoint," by Eliot Blackwelder.

"An Improved Form of High Vacuum, High Speed Mercury Vapor Air Pump" (lantern).

"A Simple Demonstration Tube for Exhibiting the Mercury Hammer, Glow by Mercury Friction and the Vaporization of Mercury at Reduced Pressures" (demonstration).

"Visible Color Effects in a Positive Ray Tube Containing Helium" (demonstration, lantern), by Chas. T. Knipp.

"A Study of Indoor Humidity" (lantern).

"The Rate of Combustion of Some Illinois Coals" (lantern), by F. D. Barber.

"Derivatives of Iso-Camphoric Acid," by Glen S. Skinner.

The officers elected for the ensuing year are as follows: Dr. J. C. Hessler, James Millikin University, Decatur, President; James H. Ferris, Joliet Vice-president; Professor T. L. Hankinson, State Normal School, Charleston, Treasurer; Professor J. L. Prier, State Normal University, Normal, Secretary.

J. L. PRIER,
Secretary

NORMAL, ILL.

SOCIETIES AND ACADEMIES

THE BIOLOGICAL SOCIETY OF WASHINGTON

THE 564th meeting of the society was held in the assembly hall of the Cosmos Club, Saturday, January 27, 1917, called to order at 8 P.M. by President Hay with 45 persons present.

Under the heading of brief notes, Messrs. W. L. McAtee and A. Wetmore made remarks on certain misconceptions as to the notes of some common species of birds and as to a theory of the migration of birds.

Under the heading exhibition of specimens, Dr. O. P. Hay showed a metacarpal of a horse with well-developed lateral metacarpals, and three fused metacarpals of a cow each with well-developed digits.

Dr. L. O. Howard commented on an enthusiastic antimosquito convention, which he had lately attended in New Jersey.

The regular program consisted of two communications:

Exploitation of Neglected Aquatic Resources: H. M. SMITH.

Dr. Smith called attention to many forms of

fishes not used as food by the American public, but which are of pleasing taste and good food value. Many of these have long been used for food by Europeans, especially about the North Sea. He gave a brief résumé of the discovery, disappearance, rediscovery of the tilefish and of its successful introduction to the consumer through exploitation by the Bureau of Fisheries. He then described the dogfish and its habits destructive to other fish and the losses caused by it to fishermen. He told of the efforts now being made by the Bureau of Fisheries to market the dogfish as a food. Under the name of grayfish it is now being successfully canned and marketed by some of the New England fisheries and by some of the salmon canneries on the Pacific coast during the winter months when salmon are unattainable. The canned meat not only constitutes one of the cheapest forms of protein now available, but the livers of the dogfish yield a valuable oil; the oviducts, eggs; and the skin a leather which has many possibilities. Discussion by Messrs. Ames, Bean and Doolittle.

Showers of Organic Matter: W. L. McATEE.

Under this heading Mr. McAtee gave a review of the various apocryphal and authentic instances in which hay, grain, various insects, encysted animalcules, worms, frogs, toads, fishes and birds had fallen from the sky. The explanation was offered that the objects had been carried aloft by violent currents of air.

THE 565th meeting of the society was held in the assembly hall of the Cosmos Club, Saturday, February 10, 1917, called to order at 8 P.M., by President Hay with 30 persons present.

Two formal communications were presented:

A Mortality of Fishes on the West Coast of Florida: H. F. TAYLOR.

During the months of October and November, 1916, vast numbers of fishes were killed in the region mentioned, by some obscure cause. It appears to be a recurrence of the phenomenon observed in 1844, 1854, 1878, 1880, 1882, 1883, 1908. Of the dead fishes 63 species, representing 37 families, were identified. The animals killed were confined, with the exception of king crabs, sea urchins and sponges to the class Pisces. Various suggested causes were examined; foul Everglade water, diseases and volcanic eruptions are inadequate explanations. Evidence at hand seems rather to show that the cause of mortality was the release of occluded bottom gases by small seismic disturbances, or possibly by abnormally large numbers of Peridinium. Mr. Taylor's paper was illustrated by lan-

tern-slide views of the region involved and of strips of shore showing the large numbers of stricken fishes. His paper was discussed by Messrs. Hay, Bartsch, Goldman, Radcliffe and others.

Changes in the Avifauna about Burlington, Iowa, 1885 to 1917: PAUL BARTSCH.

From 1885 to 1893 Dr. Bartsch was resident of Burlington and an enthusiastic bird collector. In the ideal conditions found for birds at Burlington he had recorded 275 species. Since 1893 he has been a sporadic visitor to Burlington, but has always retained his interest in the local avifauna. Passenger pigeons, Carolina parakeets, whooping and sandhill cranes, trumpeter swans were found about Burlington, but are no longer seen. The same is true of the Mississippi kite, the swallow-tailed kite, wild turkey and prairie chickens, the latter having been shot in times past from the speaker's porch. The prothonotary warbler, once common, appears to have gone northward. New birds now found at Burlington have come from the west, such as western meadowlark, red-shafted flicker. Other newcomers are the tufted tit and Carolina wren. Many of these changes are due to human agencies, some are unexplainable. Dr. Bartsch's paper was discussed by Messrs. Hay, McAtee, Wilcox, Goldman, Jackson and others.

M. W. LYON, JR.,
Recording Secretary

ANTHROPOLOGICAL SOCIETY OF WASHINGTON

THE 507th meeting of the society was held at the New National Museum on February 20. The speaker of the afternoon was Dr. I. M. Casanowicz, of the New National Museum, who presented a paper on "The Fish in Cult, Myth and Symbol."

Dr. Casanowicz said: "The fish, as the inhabitant of the mysterious, indestructible, never-resting water, early impressed man deeply and was regarded by him as the genius and representative of the life-producing element." The speaker stated that one of the principal centers of ichthyolatry in antiquity was Syria, where a fish goddess named Derketo-Atargatis was worshipped as the personification of the fructifying power of the water. Belief in the fish as a medium of transformation and incarnation of spirits was noted among the ancients, while in later times the fish, next to the bird, seems to have been a symbol of the departed human soul. The fish as carrier of man across the water was illustrated by quotations from Herodotus and the Bible; and parallel narratives of a man being swallowed by a sea monster were quoted from Greek, Polynesian and Cherokee lore.

In conclusion the speaker stated that the fish was generally considered as a being of good omen, benevolent and beneficent toward man, and, by reason of its own great fertility, a symbol of increase and abundance.

THE 508th meeting of the society was held at the New National Museum, on March 6. This meeting was devoted to a general discussion, the subject being, "Problems connected with the Distribution of the Aboriginal Population of America." The speakers were Dr. John R. Swanton, Dr. Aleš Hrdlička, Dr. Truman Michelson, Professor William H. Holmes, Dr. Walter Hough, Dr. J. Walter Fewkes and Mr. Francis LaFlesche.

Dr. Swanton introduced the discussion by stating that the subject divided itself into a consideration of the distribution of aboriginal population in America quantitatively and qualitatively. "Populations," said Dr. Swanton, "may be classified qualitatively according to their physical characteristics, languages, cultural features, social organization and so on. Archeology has a bearing on all these." He gave as one of the principal problems to be considered the bearing of the data of each class on the generally admitted Asiatic origin of the American Indians and their diffusion from the northwest.

Dr. Hrdlička, speaking from the standpoint of physical anthropology, stated that the distribution of different physical types on the American continent has always been one of the main problems of his branch of science in this country. Dr. Michelson, speaking on the linguistics of the Indians, said: "There is no single type of language, no fundamental structure that is the same in all linguistic stocks, though we find resemblances between them." Dr. Holmes spoke briefly on the changes in the culture of the Indian which have been produced by environment; and Dr. Hough noted that transportation and artificial fire-making were essential to the early inhabitants of this continent. Dr. Fewkes called attention to the fact that early migrations in North and South America were determined in large measure by the mountain ranges and rivers, and by the food supply. Mr. LaFlesche stated that the ancient rites of the Siouan stock show that the migrations of the people were influenced by the search for food. The first animal mentioned in these rites is the elk, succeeded by the deer, and later by the buffalo, at which period the mention of corn appears for the first time.

FRANCES DENSMORE,
Secretary