

At Syracuse University, Dr. Earl T. Apfel, head of the department of geology in Illinois Wesleyan University, has been appointed associate professor of geology, and Dr. Ernest Thelin, of Florida State College, associate professor of psychology and director of the psychological laboratory.

Dr. JOSEPH KAPLAN, of Princeton University, and Dr. E. L. Kinsey, of Yale University, both National Research Fellows, have been elected assistant professors of physics at the University of California.

Dr. WAYNE E. MANNING, instructor in botany in the University of Illinois, has been appointed assistant professor of botany in Smith College.

DISCUSSION AND CORRESPONDENCE

THE HEREDISCOPE AND ARTIFICIAL POPULATIONS

THE writer and a collaborator¹ have shown that there is probably much to be learned from the empirical analysis of the constants of a population the genetic constitutions of whose members are known by hypothesis. The problem attacked in the paper cited was that of the counteractive influence of assortative mating upon the negative correlation between fertility and intelligence in determining trends in the population mean in the latter trait; other factors which strongly suggest that fruitful results might be obtained from their isolation and study are incidence ratios, selection rates and degree of monogamy. Generalized, the problem is that of describing the mathematical, logical or ideal behavior of specific factors in heredity, in order that their presence may be recognized when complicated by the presence of other factors in populations of actual organisms.

Studies like that cited, however, are excessively laborious, even with the small number of genes dealt with (five); this comes about principally because a die must be thrown or a coin flipped for every appearance in a mating of a gene in the heterozygous phase, and the result recorded; in the experiment in question, twenty-five thousand is a conservative estimate of the number of dice throws necessary, although the work was continued through only five generations.

I suggest that Mr. Graves' herediscope, reported in *J. Hered.*, 1928, 19, 54-56, although designed for demonstration purposes only, embodies a principle enabling a considerable magnification of the efficiency of research with artificial populations. I can not at this writing suggest ways and means for adapting the

appliance to large-scale work; but even if it had to be reset by hand for each individual mating, the saving of labor over the dice method would be considerable, and the number of genes studied could easily be doubled.

RAYMOND R. WILLOUGHBY

CLARK UNIVERSITY

AN IMPORTANT SOURCE OF BROAD TAPE-WORM IN AMERICA¹

In a recent paper² I reported the presence of plerocercoids of *Diphylllobothrium latum* in four species of food fishes from Lake Superior and Portage Lake, Houghton County, Michigan. Evidence was presented that the Great Lakes are probably not an important source of infested fish, because only a very small percentage of the annual consumption of these fish is taken there and it was pointed out that we had reason to believe that Canadian fish shipped to the United States to be marketed would prove to be an important source of infestation. Nearly 80 per cent. of all wall-eyes consumed in the United States are imported from Canada.³ Two feeding experiments have been performed with plerocercoids taken from two shipments of wall-eyes from Lake Winnipeg, one of the most important sources of Canadian wall-eyes. In the first shipment of twenty-seven wall-eyes five plerocercoids were found. Four of these were fed to a dog from which four *Diphylllobothrium latum* adults were later recovered. One plerocercoid was found in the second shipment of twenty wall-eyes from the same lake. This larva was fed to another dog, from which a mature *D. latum* was later recovered. Both dogs were known as a result of fecal examinations to be free from *Diphylllobothrium* tapeworms before the experiments were performed.

These observations and experiments demonstrate that the eating of fish from Lake Winnipeg may be responsible for a large percentage of the cases of *D. latum* infestation in the United States—outside of the known endemic areas.

Because many of the settlers around the other Canadian lakes from which fish are shipped to the United States are immigrants from Baltic countries, it is here suggested that further investigation will

¹ Contribution from the Zoology Department, University of Michigan. This investigation was carried on under grant 96 awarded by the American Medical Association to Professors George R. La Rue and A. S. Warthin, of the University of Michigan, under the former of whom the work has been conducted and to whom I here express my grateful appreciation.

² *Journ. Am. Med. Ass.*, 90: 673-678, 1928.

³ U. S. Tariff Comm.: Lake Fish. Tariff Information Series, no. 36, 1927.

¹ Willoughby and Goodrie, "Neglected Factors in the Differential Birth Rate Problem," *Ped. Sem.*, 1927, 34, 373-393.

show that the fish in several of these lakes are infested with the plerocercoids of *D. latum*.

TEUNIS VERGEER

UNIVERSITY OF MICHIGAN

BIRDS OF THE EURASIAN TUNDRA

THE publication on April 30 of Professor Theodore Pleske's *Birds of the Eurasian Tundra* (Memoirs of the Boston Society of Natural History, vol. 6, no. 3, p. 107-485, 23 pl.) was an event of considerable interest to all students of Palearctic ornithology. This report, which is based upon the collections of the Russian Polar Expedition of 1900-1903, was printed with the income of a fund bequeathed to the Boston Society of Natural History by the late William Brewster.

Through some oversight the paper contains no reference to the fact that the author's manuscript, which was submitted in French, was translated as well as edited by Dr. Glover M. Allen. This would seem to be a case where the proverbial editorial anonymity and lack of recognition should not hold true, especially in view of the thorough scholarship evident in the work of the translator and editor.

FRANCIS HARPER,
Secretary

BOSTON SOCIETY OF NATURAL HISTORY

PRESERVATION OF THE HEATH HEN

FOR the past several years efforts have been made to preserve the few remaining species of the heath hen on Martha's Vineyard from extinction. According to a recent report from the heath hen committee, these efforts have failed, there now being but three birds left on the island, and all these are males. The most careful of determinations has failed to reveal any female birds, and the possibility of saving the species from extinction now seems hopeless. In spite of the combined efforts of the state and bird clubs, there has been a steady decrease in numbers from 1920, when there was estimated to have been six hundred birds on the island. But even though there seems to be no possibility of saving these birds, the state will continue its efforts, and the reservation will be maintained in the hope that some unforeseen factor may arise which will place a different aspect on the situation.

BIRGER R. HEADSTROM

MEDFORD HILLSIDE,
MASSACHUSETTS

HYBRID WORDS

OF course I am always horrified when the Latin-English word "data" is used as if it were singular. I am equally horrified at the continued creeping into

our language of hybrid words. If we are not very careful one of the most objectionable hybrids so far will become fixed in our vocabulary. About a year ago when the word was first used I made a vigorous protest against it in the Washington daily press.

The word I have in view now is "television." Can anything worse be imagined? Happily a hundred years and more ago both our scientific and literary scholars knew a great deal more about Greek than they do about it at the present time. In fact, it may be said that the study of Greek to-day is a lost art, and the result will be further inroads into the realm of using Greek names, or at least parts of Greek names for new diseases and new discoveries. Suppose William Cullen Bryant had not been the master of the Greek tongue, he would have named his immortal poem Thanatovision instead of its appropriate name "Thanatopsis." I proposed either the word teloptiky or telopsis which would have brought it more into harmony with William Cullen Bryant nomenclature. Can we not save the language yet, with science leading in the fight? Let us form a Telopsis Society and pledge every purist in the country to join in our campaign.

H. W. WILEY

THE WORD TO REPLACE "BELIEVE"

THE writer, during the past few years, has been closely associated in work having to do primarily with chemical patents and their causes; and in connection with the prosecution of patent applications before the United States Patent Office, particularly relative to amendments in response to actions by the patent office examiners, wherein claims in the application have been rejected on prior patents and publications, the use of the expressions "I deem" or "it is deemed" has been found very useful in presenting to the examiner the present thoughts of the applicant as to the construction to be given to the art which has been cited.

Turning again to the dictionary, it is found that "deem" is defined as follows:

To think, judge, or hold as an opinion; decide or believe on consideration; suppose.

To have an opinion; judge; think.

Opinion; judgment; surmise.

Accordingly, it may be that the use of the expression "I deem" would remove much of the ambiguity attributed by Dr. Miller to the expression "I believe."

The replacement of the expression "I believe" by "I deem" is therefore presented for consideration.

LLOYD VAN DOREN

NEW YORK CITY