the Women's Affiliated Colleges of Delaware, at Newark, Delaware.

Albert G. Hogan, Ph.D. (Yale), has been appointed assistant in animal nutrition at the Kansas Agricultural Experiment station, Manhattan, Kansas.

At the University of Indiana Dr. Kenneth P. Williams has been promoted from instructor to assistant professor of mathematics.

Miss Susan Rose Benedict, Ph.D. (Michigan), has been made associate professor of mathematics at Smith College.

DISCUSSION AND CORRESPONDENCE

TYPES OF BIRD GENERA LIMNOTHLYPIS NEW GENUS

Some years ago in discussing the fixing of types for the genera of North American Birds the writer called attention in these columns to the fact that certain names would have to be changed if the principal of "type by subsequent designation" adopted by the International Zoological Congress were adopted. This view was opposed by Dr. J. A. Allen on the ground that in his interpretation of the Code a subsequent designation was not valid if the species designated was already the type of another genus. The point raised was one of such importance that it was placed before the International Commission for an opinion and this has just been rendered and the writer's stand has been endorsed. As the matter is one upon which many systematic workers have been in doubt, it seems desirable to call special attention to the decision.

Incidentally one genus of North American birds is left without a name by the operation of this ruling.

Helinaia Audubon, 1839, contained originally two species, the worm-eating warbler *H. vermivora* (Gm.) and Swainson's warbler, *H. swainsonii* (Aud.). The name has been used universally for the latter but the first designation of a type by Gray fixed it upon the former, and in spite of the fact that this was already the type of *Helmitheros* it thereby becomes the type of *Helinaia,* the latter name being thus a synonym of *Helmitheros* Rafinesque. As no other generic name is available for Swainson's warbler I would propose *Limnothlypis*[1] with *Sylvia swainsonii* Audubon as its type.

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MUTATION

In a recent number of Science Professor Edward C. Jeffrey[1] raises objections to the concept mutation upon the ground that the phenomena in *Œnothera lamarckiana,* which de Vries described as mutation, are not mutation, this species being, as Bateson long ago suggested, a hybrid form. There seems to be about as much cogency in this argument as there would be in the claim that metagenesis is not a true concept because in *Salpa,* the form in which de Chamisso[2] first discovered it, it does not exist.[3]

The distinction between heritable variations (mutations, stable variations, "discontinuous"[4] variations) and non-heritable variations (fluctuating, unstable, "continuous"[4] variations) seems to be clearly established experimentally, and the interpretation of the former as germinal and the latter as somatic in origin, seems to have much in its favor.

Is not Professor Jeffrey's objection somewhat in the nature of a quibble?

Maynard M. Metcalf

A NEW LOCALITY AND HORIZON FOR PENNSYLVANIAN VERTEBRATES

Finds of Pennsylvania vertebrates are always interesting and important and are doubly

[1] λιμνη a marshy lake and θλυπις an ancient bird name.

[1] "The Mutation Myth," Science, XXXIX., No. 1005, April 3, 1914.

[2] A de Chamisso, "De animalibus quibusdum e classe Vermium linneana in circumnavigatione terrae," etc. Fasciculus primus, De Salpa. Berolini, 1891.

[3] W. K. Brooks, "Chamisso and the Discovery of Alternation of Generations," *Zool. Anzeiger,* Jahrg. 5, 1882.

[4] A poor term, for their heredity, not their degree of divergence from the parent stock, is the salient point.

so when the remains are not uncommon and well preserved. One of the writer's students, Mr. Carl Owen Dunbar, has recently discovered a new locality for vertebrates of this period. It is situated near the city of Lawrence and lies at the base of the Lawrence shales. The fossils occur in oblong or spherical siliceous nodules of which nearly one third contain bones and shells of value. Some are filled with small masses of many kinds of organic material and such are interpreted as coprolites, while others contain remains of fishes, crustacea, cephalopods and wood. There are no leaves and few invertebrates. The interesting and remarkable fact connected with the occurrence is the abundance of well-preserved vertebrate fossils. No less than eighteen partial or complete skulls have been collected and such have been found on the occasion of each visit. Three of the skulls show well-preserved casts of the brain. In addition there are many other complete bones, spines and scales.

The description of the vertebrates has been entrusted to Dr. R. L. Moodie, while the invertebrate and stratigraphic phases will be elaborated by Mr. Dunbar and the writer.

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EXISTENCE OF CROWN GALL OF ALFALFA, CAUSED BY UROPHLYCTIS ALFALFÆ, IN THE SALT LAKE VALLEY, UTAH

ON May 3 of this year, the writer found several typical specimens of alfalfa crown gall, caused by *Urophlyctis alfalfæ* (v. Lagerh.) P. Magnus, in the Salt Lake Valley, Utah. This disease, so far as the writer has noted, has been reported by Smith[1] in California, McCallum[2] in Arizona, and the writer[3] in Oregon. The presence of this disease in Utah may be of considerable importance in explaining many difficulties which alfalfa growers have had in maintaining profitable stands. In looking over the literature I do not note any report of its occurrence in the state of Utah, and, therefore, this note is published in order to record the presence of the disease in another locality. It is not yet known to what extent the disease has been injurious to alfalfa in the Salt Lake Valley, as its distribution has not been investigated.

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SALT LAKE CITY, UTAH,
May 14, 1914

1 SCIENCE, N. S., Vol. XXX., No. 763, August 13, 1909.

2 *Experiment Station Record*, Vol. 23, No. 7, December, 1910.

3 SCIENCE, N. S., Vol. XXXVI., No. 928, October 11, 1912.

RELIGIOUS TRAINING AT A UNIVERSITY

THE article on this subject on page 722 of SCIENCE for May 15 ought not to pass without a protest. The primary function of religion, as most thoughtful men see it, is not worship but the development of right purposes and right ideals in the conduct of life—especially the development of the ideal of service. Nothing stands out more clearly in the teachings of Christ than the thought that worship and ritual are worse than useless unless they contribute to this end.

The statement that "a few are interested in religion, but all of us in education" is, to say the least, misleading. Educational men are apt to be very reticent about religious matters and superficial observers are liable to conclude that their opinions are colorless, but a little inquiry will reveal the fact that a large proportion of both students and faculty are members of Christian churches. In the state university with which I am best acquainted 45 per cent. of the students are members of such churches and 79 per cent. register as adherents of some church. A large majority of the faculty are adherents of churches.

It is true that the fundamental virtues have been long known, as Buckle says, but many of us think that it is also true that there is great need of bringing these virtues forcibly to the attention of men and women at frequent intervals throughout their lives. As our civilization is now constituted the agency which per-