

hundred in human histology and fifty in human physiology who had had corresponding courses in "arts colleges" were compared to the grades of the same numbers of students who had had no such courses.

There were no significant differences between the abilities, as judged by average college grades and by average scores on Medical Aptitude tests, of the groups of students who had had and those who had not had the various zoology courses.

Analysis of these data shows that the students who had had comparative anatomy did approximately 10 per cent. better in gross human anatomy than the students who had not had such a course. The calculation of statistical probabilities indicates that there are 36 possibilities in 100 that this average difference in grades is due to the operation of chance in sampling. Whether one considers this probability as statistically significant is a matter for individual judgment, but, except for other possible values which the students might get from comparative anatomy, it is questionable whether the time and the effort expended are justified by the 10 per cent. better average work which the students who have taken comparative anatomy do in gross human anatomy.

In human embryology and in human histology there are no significant differences between the grades of the students who had had and those who had not had similar courses in the "arts college." Those students who had had a physiology course in a zoology department did not do as well in human physiology as those who had had no such course. This difference is suffi-

ciently great to be considered statistically significant; although it is probably without much importance.

While this study may not answer the question as to how much work in zoology a prospective medical student might profitably take, it does present evidence that the argument that a student should take a multiplicity of zoology courses because they will specifically help him in his medical school work is fallacious. There may be a slight justification on this basis for recommending comparative anatomy, but there is none whatsoever for embryology, histology or physiology.

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KILLING THE TERM, PREDATEE

IN reply to Professor L. D. Wooster's "Proposing the Term, Predatee" (SCIENCE, 89: 436, 1939), may I point out that the word *prey* denotes "any animal that is or may be seized by another to be devoured" (second definition in Webster's New International Dictionary, second edition). Therefore, *predatee* is unnecessary and, we hope, abortive. This protest is not offered in the spirit of conservatism, for I have persisted, with others, in using such naturally formed and needed words as predator, predation and speciation, until they have become recognized by the lexicographers, and am continuing to take part in the process of word-speciation by using, for example, a new verb, *to speciate*.

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SOCIETIES AND MEETINGS

THE ILLINOIS STATE ACADEMY OF SCIENCE

THE thirty-second annual meeting of the Illinois State Academy of Science met in Springfield on May 5 and 6. The meeting opened with a general session held in the Centennial Building of the State Capitol group. The governor of Illinois, though unable to attend, sent a letter of welcome, and the superintendent of schools, R. E. Fildes, gave a short address of welcome. Dr. George D. Fuller, of the University of Chicago, the retiring president, presented an interesting paper on the interglacial and postglacial vegetation in Illinois. Dr. Charles A. Shull, of the University of Chicago, also gave a paper at the general session on plant growth and growth hormones. This session closed after short talks by Anton Tomasek, state forester, on state forests in Illinois and by Dr. Thorne Deuel, chief of the State Museum, on some interesting exhibits prepared by the museum staff especially for those attending the annual meeting.

The section meetings in the afternoon were unusually well attended, some 140 papers being presented in the

nine sections offering programs. Several sections were obliged to divide their programs. One section in geology was virtually a symposium on geological features of Illinois. Chemistry, botany and zoology also were able to arrange separate programs around topics of specialized interest. The physics section met separately in the morning discussing with the representatives of medical schools in the state the problem of physics in premedical education.

Immediately after the section meetings a general business meeting and election was held. The officers of the academy for 1939-1940 are: *President*, Evelyn I. Fernald, botany, Rockford College; *First Vice-President*, Theodore H. Frison, Natural History Survey, Urbana; *Secretary*, Robert F. Paton, physics, University of Illinois; *Treasurer*, John Voss, Manual Training High School, Peoria.

Two resolutions of general interest were also passed unanimously:

Resolved, that the Illinois State Academy of Science hereby reaffirms its general approval of the efforts of the

Associated Conservation Organizations of Illinois to further the Commission plan for the administration of the Department of Conservation in Illinois as embodied in the resolution of the 31st Annual Meeting of the Academy published in the *Transactions* of June, 1938.

Resolved, that the Illinois State Academy of Science express its approval of any action of the State Legislature or of other agencies public or private looking toward the preservation of sites within the state which are of archeological, historical, and of scientific interest.

The Junior Academy had its usual enthusiastic meeting. Some fine exhibits were set up in the local high school gymnasium and the groups representing the many high-school science clubs in the state showed high enthusiasm. Dr. C. T. Knipp, of the University of Illinois, gave the evening address to the Junior Academy, giving some interesting demonstrations of his singing tubes and other experiments he has developed. Dr. H. K. Gloyd, director of the Chicago Academy of Sciences, gave the annual public lecture of the Senior Academy, talking on the animal life in the Arizona deserts.

The annual tradition of scientific pilgrimages on Saturday was maintained by four such excursions into the surroundings of Springfield, which are especially rich in scientific and historical material.

At the council meeting on Saturday it was voted that the next annual meeting be held in Galesburg, Illinois, on May 3 and 4, 1940.

R. F. PATON

UNIVERSITY OF ILLINOIS

THE NEW HAMPSHIRE ACADEMY OF SCIENCE

THE twenty-first annual meeting of the New Hampshire Academy of Science was held on June 2 and 3 at Dartmouth College, Hanover, N. H. At the Friday evening session, Professor W. B. Unger showed motion pictures of Australian mammals and birds, and Mr. A. E. Bent, secretary of the Mount Washington Observatory, showed colored films of the mountains, the work at the observatory and hurricane damage at high altitudes. There followed a social meeting at the Wilson Museum sponsored by the Dartmouth Scientific Association. Professor C. J. Lyon and others made an exhibit for this meeting of specimens of most of the local wild flowers of the season, and the Dartmouth Natural History Club exhibited a collection of over fifty kinds of living animals from the vicinity. Other demonstrations of the local bird studies and of new state and academy publications were on view.

At the Saturday morning session, the chief feature was a symposium, "The Hurricane of September, 1938, and its After-Effects." The meteorology of the hurricane was discussed by Professor C. F. Brooks, of the Blue Hill Observatory. Forestry aspects were treated

by W. F. Hale, assistant state forester, and L. W. Rathbun, of the Society for the Protection of New Hampshire Forests. Mr. Kenneth Roberts spoke on flood control aspects, and T. J. Dent, of the New Hampshire Fish and Game Commission, and John Pearse, of the U. S. Biological Survey, discussed the effects of the hurricane on animals and game management.

On Saturday morning, the Dartmouth Eye Institute presented a program of four papers introducing their accomplishments and research projects. The Eye Institute was opened for the inspection of the academy members.

Saturday afternoon was given over to the reading of papers by other members, to the business meeting and to the address of the retiring president, Dr. Henry I. Baldwin, on "Scientific Freedom."

At the business meeting it was voted to award the grant-in-aid for the current year from the American Association for the Advancement of Science to Professor W. W. Bowen, curator of the Wilson Museum, Dartmouth College, for assistance in completing "A Survey of Bird Population Density in Relation to Various Ecological Factors." The publication committee announced plans for publishing a bulletin on "Glacial Geology of Mt. Washington" by R. P. Goldthwait and for replacing the mimeographed account of the annual meeting by a formal printed "Proceedings" containing abstracts of papers presented.

The following officers were elected for 1939-40: *President*, Professor George W. White, University of New Hampshire; *Vice-President*, Professor Bancroft H. Brown, Dartmouth College; *Secretary-Treasurer*, Professor W. W. Ballard, Dartmouth College; *Members of Executive Council*, Dr. Henry I. Baldwin, State Forestry Department, for five years, and Mr. Henry S. Shaw, Exeter, N. H., for three years.

W. W. BALLARD,
Secretary

THE NEW YORK STATE GEOLOGICAL ASSOCIATION

MORE than 160 persons attended the meeting of the New York State Geological Association on May 12 and 13 at Canton, N. Y., where the St. Lawrence University acted as host. The Gouverneur marble quarries, the Richville feldspar mine, where 42 different minerals have been found, the Edwards zinc mine, the Fowler talc mine, "Lost River," an underground portion of Boland Creek, the Reservoir Hill phacolith near Gouverneur, eskers, kames, pro-glacial deltas and lake features were visited in the field.

On Friday evening the annual dinner was held in the Men's Residence of St. Lawrence University, after which the following program was given: Address of Welcome, President Laurens H. Seelye; "Minerals of