

His talk was followed by an address by Dr. M. M. Leighton, chief of the Illinois State Geological Survey, Urbana, whose subject was "Our Exhaustible Resources of Minerals. What Should be the Aim of a Conservation Program?" The final address of this session was given by Dr. Theodore H. Frison, chief of the Illinois State Natural History Survey, on the subject, "Advances in the Renewable Natural Resources Program of Illinois." The Friday morning program of the Junior Academy consisted of the display and the judging of the exhibits by the junior members entered in the annual competition. At the Friday evening general meeting, Dr. T. E. Musselman, of Quincy, addressed the Junior Academy on the topic, "Birds That Hunt and are Hunted," while Dr. John A. Wilson, director of the Oriental Institute of the University of Chicago, Chicago, gave the evening address before the Senior Academy on the subject, "New Spades in Old Soil."

On Friday afternoon 121 papers were presented before eleven sectional meetings. On Saturday the sessions of the meeting consisted of three field trips in the region of Carbondale. The anthropological trip under the direction of Dr. Bruce Merwin and Mr. Irvin Peithman, both of Carbondale, visited some of the many archeological sites of the region. The geological trip, under the direction of Dr. George E. Ekblaw and Mr. J. E. Lamar, of the Illinois State Geological Survey, and Professor H. R. Wanless, of the University of Illinois, visited points of geological interest. The biological trip, which visited the National Forest, Horseshoe Lake and other points of biological interest, was under the direction of Dr. T. H. Frison, chief of the Illinois State Natural History Survey, with the assistance of the other members of his staff, members of the National Forest Service and Mr. Francis D. Hunt, of the State Department of Conservation.

The following resolutions were passed by the academy at its business meeting:

(1) *Resolved*, that the Illinois Academy of Science heartily approves the efforts of the Associated Conservation organizations of Illinois to further the commission plan for the administration of the Department of Conservation in Illinois, and that a copy of this resolution be sent to Don T. Mason, Secretary of the Associated Conservation Organizations of Illinois.

(2) *WHEREAS*: From time to time medical progress is hampered by misleading campaigns for legislation by Anti-Vivisection Societies and whereas the prohibition of humane animal experimentation throttles scientific research into the nature and treatment of diseases common to both animals and man, the Illinois Academy of Science hereby resolves that such activity is ill informed and dangerous to the public well being.

(3) The Illinois Academy of Science desires to record its protest against the introduction into Primeval Na-

tional Parks of any form of commercialism. Embracing only a minute part of our national area, these superb and irreplaceable examples of unique, primitive conditions should be kept inviolate and preserved for the education and inspiration of future generations. The Illinois Academy urgently petitions all state and federal officers, and especially, the President of the United States, and members of his cabinet, as well as members of Congress, to oppose resolutely the granting of permits extending such privileges in these parks. It is hereby ordered that a copy of these resolutions be sent to the President. Also to the members of the Cabinet, to Illinois Senators, and Representatives in Congress, and that they be furnished to all societies and persons interested in the National Parks.

(4) *WHEREAS*: It is necessary for the conservation of archeological and historical sites in Illinois that a law be enacted by the General Assembly providing for the licensing of all persons or institutions who desire to excavate prehistoric sites, ancient burial grounds, or any site of importance to the history of Illinois; *be it resolved* that the Committee for Conservation of Archaeological and Historical Sites be empowered to confer with the Director of Registration and Education, and to draw up a bill for submission to the council of the Academy for its approval.

(5) *Resolved*, that the Academy reaffirms its past position with respect to emphasizing the importance of the research agencies of the State, and that they continue their sound and thoroughgoing researches on the natural resources of the State with a view to more intelligent development and conservation.

The officers elected for next year are:

*President*, George D. Fuller, botany, University of Chicago.

*First Vice-president*, Evelyn I. Fernald, botany, Rockford College.

*Secretary*, Robert F. Paton, physics, University of Illinois.

*Treasurer*, Paul D. Voth, botany, University of Chicago.

The next annual meeting will be held in Springfield, Ill., on May 5 and 6, 1939.

ROBERT F. PATON,  
*Secretary*

#### THE NORTH CAROLINA ACADEMY OF SCIENCE

THE thirty-seventh annual meeting of the North Carolina Academy of Science was held at the North Carolina State College of Agriculture and Engineering of the University of North Carolina, Raleigh, N. C., on May 6 and 7, 1938. The meeting was exceptionally well attended by members and visitors. Ninety papers and several exhibits made up a record program.

Because of the large number of titles, especially in the field of botany, it was necessary to create two new sections, one for botany and one for zoology.

The General Section met at 9:30 A.M. on the first

day for the presentation of papers of general interest and continued, except for the luncheon hour, till 4:30 P.M. The Botany Section met from 2:00 to 4:30 P.M. on the first day.

The annual business meeting was held at 4:30 P.M., on May 6. At this meeting, resolutions of respect were read in honor of the memories of Mrs. Edna Metz Wells and Dr. William Louis Poteat. The executive committee reported the election of sixty-six new members and the reinstatement of thirteen former members.

In the high school science essay contest, sponsored by the academy, the first prize was awarded to Larry Hardin, Boyden High School, Salisbury, N. C., for his essay entitled "Science in Aviation."

Dr. Herbert F. Prytherch of the U. S. Bureau of Fisheries, Beaufort, N. C., was awarded the medal for the most noteworthy paper on the 1938 program. The title of Dr. Prytherch's paper was "Life Cycle of a Sporozoan Parasite of Oyster." The American Association for the Advancement of Science research grant was awarded to Dr. Henry W. Jensen, of the Asheville Farm School, for his project on "continuation of a study on the evolution of the dioecious flora of the southern Appalachians with special reference to the function of the chromosomes in sex determination."

The issuing of an annual membership card to each member in good standing was authorized by the academy.

The constitution for the academy was amended in such a way as to recognize three kinds of memberships, as follows: (a) active membership; (b) active scientific organizations membership; (c) life membership.

In the evening of the first day a complimentary picnic supper was extended to the members of the academy in Pullins Park by the North Carolina State College. Dr. M. L. Braun, vice-president of the academy, presided at the evening meeting. An address of welcome was given by Colonel J. W. Harrelson, dean of the administration of State College, after which Dr. W. E. Speas, of Wake Forest College, gave his presidential address, entitled "The Father of Nuclear Physics." This was followed by an informal reception by the State College Woman's Club.

In the forenoon of the second day the academy met in the following sections: General, Botany, Zoology, Mathematics, Physics, and the North Carolina Section of the American Chemical Society.

The following officers of the academy were elected for next year:

*President:* John W. Lasley, Jr., University of North Carolina.

*Vice-President:* Donald B. Anderson, North Carolina State College of the University of North Carolina.

*Secretary-Treasurer:* H. L. Blomquist, Duke University.

*Executive Committee:* The above officers and W. L. Porter, Davidson College; R. F. Poole, North Carolina State College of the University of North Carolina; and O. C. Bradbury, Wake Forest College.

*Representative to the A. A. A. S.:* Bert Cunningham, Duke University.

The following officers were elected by the various sections:

#### CHEMISTRY SECTION

*Chairman:* Neville Jones, Wake Forest College.

*Vice-Chairman:* E. C. Markham, University of North Carolina.

*Secretary-Treasurer:* Ivan D. Jones, North Carolina State College of the University of North Carolina.

*Councilors:* R. W. Bost, University of North Carolina, and D. G. Hill, Duke University.

*Members of the Executive Committee:* W. C. Vosburgh, Duke University; Edward Mack Jr., University of North Carolina; and Walter Jordan, North Carolina State College of the University of North Carolina.

#### MATHEMATICS SECTION

*Chairman:* R. C. Bullock, North Carolina State College of the University of North Carolina.

*Secretary:* E. A. Cameron, University of North Carolina.

#### PHYSICS SECTION

*Chairman:* W. E. Speas, Wake Forest College.

*Secretary:* F. W. Lancaster, North Carolina State College of the University of North Carolina.

#### ZOOLOGY SECTION

*Chairman:* Bert Cunningham, Duke University.

*Secretary:* Z. P. Metcalf, North Carolina State College of the University of North Carolina.

The Botany Section did not elect officers but left the appointment of officers to the executive committee.

The thirty-eighth annual meeting of the North Carolina Academy of Science will be held in 1939 at Wake Forest College, Wake Forest, North Carolina.

H. L. BLUMQUIST,  
*Secretary*

## SPECIAL ARTICLES

### THE CHROMOPROTEINS OF PHOTOSYNTHETIC PURPLE BACTERIA<sup>1</sup>

It is well known that chlorophyll extracted from

<sup>1</sup> From the Department of Biological Chemistry, Harvard Medical School, Boston, Massachusetts, and the Cruft

leaves with organic solvents has undergone alteration through the process of extraction, because the absorption bands of such solutions are displaced about 20 mμ

Laboratory, Harvard University, Cambridge, Massachusetts.