

of the last century there was a gradual swinging away from taxonomy toward more recently developed branches such as morphology, ecology, cytology and genetics. The swing has been so great that few taxonomists were trained at the period when our present generation of teachers were in college. There are, therefore, few taxonomists of first rank in our colleges at present. This condition also accounts in part for the lack of interest in taxonomy among our undergraduate and postgraduate students. Consequently, taxonomy if taught as a distinct course is likely to be in the hands of a teacher whose primary interests are in some other branch of botany.

Assuming a desire to give the teaching of taxonomy a coordinate rank in the curriculums of our colleges, how can this be realized under the present conditions? I venture the following suggestions on what should be attempted as rapidly as practicable. It should be understood that taxonomy is now taught satisfactorily in a few of our educational institutions and there are a few taxonomists of high rank in charge of courses in taxonomy, but in the aggregate taxonomy is not receiving the attention that it should.

First, the larger universities should establish a division of taxonomy as a primary branch of the department of botany. The professor in charge of this division should be a taxonomist of first rank.

Second, the student should be given the same opportunity to specialize in taxonomy that is given in other branches of botany. This opportunity should include contact with the subject at the same time that he comes in contact with the other branches. It should include a sympathetic attitude toward taxonomy, that is, the student should be encouraged to specialize in taxonomy if he shows a liking for the subject.

It has been objected that the demand for professional taxonomists is so small that it is not worth while attempting to train them on the same scale as botanists in other lines are trained. This objection disappears when the subject is examined more closely.

In the first place I think it is not the function of undergraduate instruction in botany to train professionals. Even the instruction in postgraduate courses is scarcely of the nature to train professionals. Professional training with the taxonomist begins when he accepts a position in which taxonomy is the chief line of work. Such would be an assistantship in an herbarium or in state or federal government department. What our colleges should do is to give the student a training which will fit him for a position of this kind. It is true that professional positions in taxonomy are limited in number. It is also true that professional positions in other branches of botany are few. How many positions are there in which the occupant devotes himself to physiology, to genetics or to cytology?

I am not here referring to teaching positions except as the teacher devotes himself entirely to one of these subjects. On the basis of specialization I think there is as much demand for taxonomists as for specialists in other lines.

Many of the botanists who take postgraduate work in our educational institutions become teachers of botany. If they are adapted to the prosecution of research they specialize in some branch in which they are interested. Much of the research in botany at present is carried on by teachers for whom the research is a side line. They are professional teachers rather than professional research workers. In this connection, then, my plea is that taxonomy be placed on an equality with other branches of botany in our colleges, then those who have taken special training in botany will have had an opportunity to equip themselves for research in taxonomy. Those who become teachers and have the opportunity and the inclination to carry on research in taxonomy can do this as a side line. In this way the amount of taxonomic research in America would be greatly increased.

It is true that comprehensive work in taxonomy can be pursued only in connection with a large herbarium and botanical library. But much can be done by the isolated worker if he confines himself to a definite group. He can accumulate specimens and books dealing with this group. He can supplement this by borrowing books and specimens. He can give the final touches to a piece of work by visiting a large taxonomic center.

Every institution teaching botany should have an herbarium, not a large one to compete with the great botanical centers, but a small well-selected collection of plants which can be used as a laboratory for teaching taxonomic botany.

However, the basis for the proper development of taxonomic botany is first a realization of its importance and, second, a sympathetic attitude toward this branch in our colleges.

A. S. HITCHCOCK

WASHINGTON, D. C.

THE FIFTH NEW YORK MEETING OF THE AMERICAN ASSOCIATION AND ASSOCIATED SOCIETIES¹

PREPARATIONS for the fifth New York meeting of the American Association are much further advanced than is usual at this time. It is evident that this meeting will be larger and more important than any earlier

¹ This is the second announcement about the approaching New York meeting. The first announcement, by President Henry Fairfield Osborn, was published in *SCIENCE* for April 20.

meeting. Forty-one special scientific societies are planning to meet with the association on that occasion. A survey of available hotels and session rooms has already been made and the facilities have been shown to be ample for all needs.

Under the efficient and enthusiastic leadership of the president of the association, Professor Henry Fairfield Osborn, president of the American Museum of Natural History, several unusually attractive features are being planned for this meeting. It is hoped that those who come from away will arrive on Thursday, December 27, in time for the opening general session on Thursday evening and the general reception that is to follow it, and that they will remain throughout the period of the meeting, which will close with another general reception Wednesday evening, January 2. There is to be a general session of the association each evening at the American Museum. These general sessions on Friday, Saturday, Monday and Tuesday evenings are each to be devoted to a lecture by some eminent man of science, presenting interesting aspects of current progress in one of the larger science fields. These main public lectures are to be sufficiently non-technical to be useful to workers in other fields as well as to those in the respective fields of the lecturers themselves. Other general sessions for the same general purpose are being planned, and the fifth New York meeting will furnish exceptional opportunities for science workers in each field to become better acquainted with the recent accomplishments and aims of those in the other branches. This feature is being developed with the aim of counteracting to some extent the regrettable narrowing that inevitably results from modern specialization in science. While the special science societies and the sections of the association are devoted to the advancement of the several sciences, the American Association as a whole and the affiliated state academies of science need to give much attention to the broader aspects of science, the interlocking of all the many kinds of intellectual endeavor that together make up science in general. A social period is planned for each evening, following the general sessions, and those who attend are to have opportunity to examine the American Museum exhibits in the field of science to which the evening is specially devoted. These evening sessions will alone be well worth the trip to New York and the devoting of the entire week to science in the broader sense.

The retiring president of the association is this year Dr. Arthur A. Noyes, director of the Gates Chemical Laboratory of the California Institute of Technology. Dr. Noyes will deliver the retiring presidential address at the general session on Monday evening, December 31. The general session of Friday evening, December

28, is to be devoted to the annual Sigma Xi lecture, which is a regular feature of the annual meetings of the association. The lecturer will be chosen, as usual, by the Society of the Sigma Xi and his name will be announced in due time. A concert is being planned for Sunday afternoon and excursions to scientific institutions in and near New York are to be arranged for Sunday forenoon and for other times.

Reduced railway fares are being arranged for those who attend the New York meeting, which will amount to a fare and a half for the round trip. Plans are being made by which the validation of railway certificates may be accomplished with a minimum of trouble on the part of those who register. It is likely that there will be several registration offices, since scientific sessions will be held at several places.

The registration fee for the meeting is to be two dollars and each registrant is to receive the official badge, a copy of the "General Program," together with such program supplements as may be published, any other literature issued in connection with the meeting and an identification card entitling the recipient to all the privileges of the meeting, including the endorsement and validation of one railway certificate. But members of the American Association for the Advancement of Science who have been enrolled for the year 1928-29 may register by paying only one dollar. To secure the benefit of this lower registration fee one must be a life member of the association or an annual member whose current dues have been paid. Enrollment cards for 1928-29 will be issued from the Washington office to all life members on October 1, and to annual members upon receipt of dues for 1928-29, which are due October 1. These cards should be brought to the meeting and should be shown at the registration office in order to obtain the benefit of the lower registration fee.

Associates for the fifth New York meeting are to pay the regular associate fee of five dollars and are not to pay any registration fee. The associateship is provided for those who are willing to contribute to the meeting fund but who do not care to become members of the association. Associates do not receive the association journal, but they are to receive the special issues of *SCIENCE* that contain the reports of the meeting. They have all the privileges of the meeting except voting. All associate fees collected for this meeting, as well as registration fees and all entrance fees of new members who join at this meeting, are to go into the meeting fund, which is to be used for paying the extra expenses of the meeting.

A list of hotels and room prices will be published in *SCIENCE* as soon as assignments of hotel headquarters shall have been made by the local committee in charge of that feature of the preparations. It is hoped that

reduced prices may be arranged for those from away who plan to stay in New York for Science Week. There are plenty of medium-priced hotels in the city and there will be no dearth of suitable rooms, but early reservation of rooms will be desirable. Reservations are to be sent directly to the hotels, after the appearance of the list showing the hotel headquarters of the several societies that are to meet with the association this year. The secretaries of these organizations will be promptly informed about hotel headquarters, prices, etc., so that they may transmit this information to their members.

The names of the forty-one organizations that have thus far intimated their intention to meet with the association in New York are as follows. Names of those that are officially affiliated with the American Association are indicated by one or two asterisks. One asterisk shows that the organization has one representative in the association council and two asterisks show that it has two representatives. Other officially associated societies are each indicated by a cross:

Organizations related to Section A (Mathematics)

- **American Mathematical Society
- **Mathematical Association of America

Organizations related to Section B (Physics)

- **American Physical Society
- *American Meteorological Society

Organizations related to Section D (Astronomy)

- **American Astronomical Society

Organizations related to Section E (Geology and Geography)

- **Geological Society of America
- **Paleontological Society of America
- *Mineralogical Society of America
- **Association of American Geographers
- †National Council of Geography Teachers

Organizations related to Section F (Zoological Sciences)

- **American Society of Zoologists
- **Entomological Society of America
- **American Association of Economic Entomologists
- *American Society of Parasitologists
- Phi Sigma Biological Research Society

Organizations related to Section G (Botanical Sciences)

- **Botanical Society of America
- **American Phytopathological Society
- **American Society of Plant Physiologists
- †Sullivant Moss Society
- †American Fern Society

Organizations related to both Sections F and G

- **American Society of Naturalists
- **Ecological Society of America
- **American Microscopical Society
- Genetics Section of American Society of Zoologists and Botanical Society of America
- Geneticists Interested in Agriculture

Organizations related to Section H (Anthropology)

- **American Anthropological Association
- †American Folk-Lore Society

Organizations related to Section I (Psychology)

- **American Psychological Association

Organizations related to Section K (Social and Economic Sciences)

- †Metric Association

Organizations related to Section L (Historical and Philological Sciences)

- *Linguistic Society of America
- **History of Science Society

Organizations related to Section O (Agriculture)

- **American Society of Agronomy
- *Society of American Foresters
- *American Society for Horticultural Science
- †Potato Association of America
- †Gamma Sigma Delta Honor Society of Agriculture

Organizations related to the American Association as a whole

- **Society of the Sigma Xi
- **American Association of University Professors
- †Gamma Alpha Graduate Scientific Fraternity
- *American Nature-Study Society
- Sigma Delta Epsilon Graduate Women's Scientific Fraternity

As has been said, the fifth New York meeting will be unusually large, but it promises to be really less crowded than some of the smaller meetings have been. It is hoped that the society meetings may be distributed throughout the week so that the two halves of the meeting period (separated by Sunday) will not be very unequal in this respect. This meeting is to be specially interesting and unusually satisfactory on account of the inclusion of a Sunday in the period. This will offer exceptional opportunities for committee meetings, personal consultations, excursions to interesting points in the city, etc.

There will be no lack of suitable rooms to supply the needs of the numerous sections and societies. Some of these will meet in the American Museum and most of the remainder will meet at Columbia University, which cordially offers its very excellent facilities. Earlier New York meetings of the association and the associated societies have been held at the university, as those who have attended those meetings will remember with pleasure and satisfaction.

The great annual science exhibition, which has recently become a very important feature of the association meetings, will be especially large and valuable this year. A large number of firms that supply scientific apparatus for research and teaching and many publishers of scientific books are to take part. There will be an unusual number of exhibits by research workers and research institutions and laboratories.

Those who have new apparatus, methods or results that will be suitable and available for the New York exhibition should take up this question at an early date, by correspondence with the permanent secretary's office in Washington. Since many research workers are apt to be somewhat overmodest in bringing their work forward, those who know of apparatus and methods recently developed by others are asked to inform the permanent secretary, so that invitations may be sent out to secure as valuable and as representative scientific exhibits as may be had. Arrangements for this important feature of the exhibition should be taken up early, before October 1, for considerable correspondence will probably be necessary in each case and the press of other matters will be very great in the fall. The location of the general exhibition will be announced later. It will be convenient for those who attend the meeting and will be unusually valuable and attractive. The assignment of space for the commercial exhibits is in charge of Major H. S. Kimberly, manager of the exhibition.

An important feature of the New York meeting will be one or more sessions of the Secretaries' Conference, which has recently been organized under the special secretaryship of Dr. George T. Hargitt, Lyman Hall, Syracuse University. Another important feature will be a session and a complimentary dinner of the Academy Conference, also recently organized, the secretary of which is Dr. Howard E. Enders, Purdue University, Lafayette, Ind. The secretaries' complimentary dinner is planned for Sunday evening. That of the academy conference will probably occur Thursday evening. The first session of the executive committee of the association will be held at the general-head-quarters hotel Thursday morning at 10 o'clock and the first council session will be held Thursday afternoon at 2 o'clock, after which will occur a session of the academy conference.

It is very desirable that as many as possible of the preliminary plans for the great New York convention in Science Week shall be completed before June. Little can be accomplished during the summer and both the local committees and the Washington office will be very busy after October 1. Correspondence about local arrangements should be addressed to Dr. Sam F. Trelease, American Association for the Advancement of Science, American Museum of Natural History, 77th St. and Central Park West, New York City. Carbon copies of all such communications should be sent, at the same time, to the permanent secretary's office, American Association for the Advancement of Science, Smithsonian Institution Building, Washington, D. C. Correspondence about space to be occupied by commercial exhibits in the general exhibition should be addressed to Major H. S. Kim-

berly, American Association for the Advancement of Science, Smithsonian Institution Building, Washington, D. C. Communications about scientific exhibits, by investigators and research workers, should be addressed to the permanent secretary.

Further notes concerning preparations for the fifth New York meeting will be published in *SCIENCE* as these become available and the "Preliminary Announcement" of the meeting will appear in the issue of *SCIENCE* for November 30.

BURTON E. LIVINGSTON,
Permanent Secretary

SCIENTIFIC EVENTS

THE INTERNATIONAL POPULATION UNION

At the last session of the World Population Conference in Geneva, on September 3, 1927, there were passed the following resolutions:

The World Population Conference resolves that a permanent international organization be created for the object of studying population problems in a strictly scientific spirit.

A Provisional Committee is hereby authorized to prepare the constitution for this organization.

In accordance with these resolutions the following Provisional Committee for the organization of an International Union for the Scientific Investigation of Population Problems was then appointed, with power to coopt additional members until the total number of the committee was fifteen:

Representing	
Sir Bernard Mallet	United Kingdom of Great Britain
Professor F. A. E. Crew	
Professor E. M. East	United States of America
Professor Raymond Pearl	
Professor Leon Bernard	France
Professor Erwin Baur	Germany
Professor Corrado Gini	Italy
Professor W. Rappard	Switzerland
Professor A. Mahaim	Belgium

Under the power granted for cooptation the following persons have been added to complete the committee:

Representing	
Professor Severino Aznar	Spain
Professor Kiyō Sue Inui	Japan
Professor H. Lundborg	Scandinavia
Professor J. H. dePaula Souza	South America
Doctor Charles H. Wickens	British Dominions
Professor V. Bunak	Russia

The committee organized at Geneva and appointed Raymond Pearl, chairman, and Professor F. A. E. Crew, secretary.