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THE UNION OF AMERICAN BIOLOGICAL SOCIETIES AND BIOLOGICAL ABSTRACTS

THE WASHINGTON CONFERENCE OF MARCH 7, 1931

By Professor W. C. CURTIS

PRESIDENT 1931

THE Union of American Biological Societies was formed in 1923 by the organizations that wished to establish the comprehensive abstracting journal known as *Biological Abstracts*. It is stated in the preamble of the Union that "in view of the existence of many biological societies in America, each preoccupied with its own special affairs and problems, in view of the assured interest of all these societies in the broader and more general aspects of the promotion of biological science, and especially in view of the need for improved means of contact and mutual aid between the pure and the applied branches of biological science, this Union is established to facilitate constructive and mutually advantageous cooperation among the several special biological societies and to promote

the major interests of biology." The objects stated are "to stimulate investigation in the field of biology, to organize and promote the interests of bibliography and publication, to deal with questions of general interest in the field of biology, and in general to promote the solution of those broad problems which the specialized societies are not in a position to support effectively, and to do anything else which may serve these ends."

Administration of the Union is vested in an executive committee, consisting of the president, secretary, treasurer and three additional members, and a council, consisting of two representatives of each member-society. At the outset there were seventeen member-societies. There are now twenty-nine, with another

to be added within the year. When the magnitude of the Union's initial enterprise, *Biological Abstracts*, was appreciated, it was decided that other major responsibilities should not be undertaken until the *Abstracts* could be firmly established. For this reason the Union has been inactive, except as its sponsorship and its representation on the trustees of *Biological Abstracts* have been of inestimable value to this publication. As the membership is by societies and not by individuals, the Union is unknown to many American biologists, and some who participated in its organization may have forgotten its existence.

The need for such an organization as the Union is apparent. American chemists have about 18,000 members in one organization, the American Chemical Society; we biologists have about 8,500 different individuals distributed among thirty societies. Any biological enterprise of broad significance must be undertaken by a number of these thirty organizations. This situation may be unfortunate, but it is an accomplished fact resulting from group interests that have created stimulating units of discussion and cooperation in the biological field. It is idle to say that such disruption might have been prevented, if some of the older biological organizations, like the American Naturalists, or if the American Association for the Advancement of Science had dealt more wisely with the diversified interests of their membership on many occasions. It seems to the writer no less idle to suppose that any one of the older societies can now provide the necessary mechanism if we are to unite for major undertakings. If any form of organization can be effective for these activities, it will be a federation, like the Union of American Biological Societies, into which each society comes as an equal. One may indeed despair of success in the cooperation of groups so diversified. Democracy is like a raft—"it never sinks, but our feet are always wet." As it stands the Union of American Biological Societies may be only a "paper organization," but it represents a commitment and a great accomplishment. The members of its constituent societies approved the establishment of *Biological Abstracts* by an overwhelming majority in a referendum taken before the initiation of this publication, and our hopes are near to realization. Having set our hands to the plough we can not turn back until the *Abstracts* is placed upon a secure foundation. If the Union succeeds in this undertaking it may be deemed worthy of other responsibilities.

As *Biological Abstracts* is now confronted with the problem of more permanent financing, it seemed desirable that effective consultation be held with the member-societies. The council of the Union, consisting as it does of two representatives elected by each

society, presented the normal method of such contact. But the expense of bringing fifty-eight individuals together was a serious obstacle. Moreover, the present membership of the council was elected some years ago. It seemed most important that the executive committee should consult the present officers of the member-societies. Conferences held at the time of general scientific meetings, as at Cleveland last December, are seldom effective as to attendance or discussion. It was, therefore, decided to hold a conference between the executive committee of the Union and the presidents of all member-societies, or representatives these presidents might delegate, at a time when other interests were not impending. It was felt by the executive committee of the Union that the traveling expenses of individuals attending such a meeting should be borne by their respective societies, but knowing the budgets of these organizations it was obvious that such financing would be impossible on short notice. As the need was for a fully representative meeting at an early date, we arranged with the National Research Council for payment of these expenses.

As a result, forty individuals were present in Washington March 7, and all but two of the twenty-nine member-organizations were represented. The discussion begun at the three-hour morning session was continued at luncheon and thirty-five were still present when the conference adjourned at 5:00 P. M. It was thus as representative a meeting as could be expected under the circumstances, and the executive committee of the Union feels that the sense motions of such a conference should be highly regarded. The conference was opened with remarks by the president of the Union, the substance of which is included in the preceding paragraphs. Professor McClung, the past-president, and Dr. Schramm, editor-in-chief of *Biological Abstracts*, then spoke informally, after which the meeting was thrown open for discussion of the *Abstracts* and problems of the Union.

As the purpose of the gathering was to inform those in attendance regarding the editorial and financial problems of *Biological Abstracts*, and incidentally to discuss what might be done by its sponsors, the Union was discussed mainly in relation to its commitment, the *Abstracts*. Questions and criticism were invited rather than polite approval. It was evident that the individuals in attendance were appreciative of *Biological Abstracts* and that criticism was directed, not at the undertaking itself but at its incompleteness, the delays in indexing and similar limitations to date. As the editorial and financial problems became more familiar during the discussion, these criticisms became wholly sympathetic. It seems fair to say that those in attendance left Washington

much more impressed by what had been actually accomplished in the stupendous task of abstracting all biological literature than by the delays, since these have been inevitable where problems of such magnitude have arisen and funds have been inadequate despite generous assistance.

As the executive committee of the Union wished that opinions and other expressions should represent judgments based upon the information presented at the meeting and upon adequate examination of documents submitted with the agenda, no formal resolutions were proposed. Instead, we mailed to each individual during the week following the conference the questions cited with summary of replies in the following paragraphs.

(1) *Do you endorse Biological Abstracts?—*

(a) as a worthy accomplishment to date.

(b) as a project that should be completed in the sense that abstracts and indices be brought up to date as soon as possible.

(c) as an integrating factor in the biological sciences.

(d) as potentially an invaluable aid to investigation.

Yes: 30, many adding a commendatory sentence.

2, with reservations.

1, would prefer *Botanical Abstracts* as published before its merging with *Biological Abstracts*.

(2) *Do you favor inclusion of systematic literature as an integral part of Biological Abstracts?*

Yes: 20, some with strong commendation of such inclusion.

6, yes, with some reservation, like "if not too expensive."

Uncertain: 5, because not interested in the field.

No: 2.

This question was discussed at length by the conference. A large majority evidently felt that the inclusion of taxonomic abstracts is highly desirable.

(3) *Do you favor publication of indices annually or at less frequent intervals, say, every five or ten years?*

Annually: 32, many with emphatic comment to effect that annual and also cumulative 5 or 10-year indices are necessary.

5-year-intervals: 1, although desirable annually if not too expensive.

As discussed in the conference it was clear that the group was virtually a unit in its conviction that the annual index is an indispensable part of the *Abstracts*.

(4) *Do you endorse solicitation by trustees of Abstracts and officers of the Union of additional financial support to bring up to date within a two-year period the editorial work of abstracting and indexing and of publication?*

Yes: 32, many with comments that the only strictures that can be fairly passed upon *Biological Abstracts* to

date are the failures resulting from inadequate financial support.

No: 1, the botanist who again expresses wish for a return to *Botanical Abstracts*.

(5) *What do you regard as the greatest accomplishment of Biological Abstracts to date?*

The answers are naturally diverse, but all reflect the conviction that the accomplishment to date is a remarkable achievement, despite any shortcomings. One comment that expresses essentially that of many others is: "Organization of a working machine that may be expected with proper support to bring the world's biological literature to the hands of investigators more effectively than any or all other agencies."

(6) *What do you regard as the greatest shortcoming in Biological Abstracts to date?*

Incompleteness and delays in publication are cited by the majority, but these defects are recognized as inevitable at the outset and with limited financing. Delayed indices are frequently cited. Criticism therefore centers principally upon defects that have resulted from financial limitations, which make payment of honoraria, earlier printing, etc., impossible.

(7) *Are you willing to present the case of Biological Abstracts as opportunity offers to other members of the biological society or societies in which you hold membership?*

Yes: 29, some adding strong comments.

No answer: 3.

No: 1, who previously expressed preference for *Botanical Abstracts*.

(8) *Do you regard as thoroughly justified the expenditure of one dollar on the adequate and comprehensive abstracting and indexing service in biology for every \$1,000 to \$2,500 expended on the research thus abstracted and its original publication?*

Yes: 30.

Yes: 3, with reservations, like "if it costs that much."

(9) *Have you any suggestions regarding immediate activities of the Union of American Biological Societies other than its support of Biological Abstracts?*

This question of what other activities might be undertaken by the Union was discussed briefly before the conclusion of the conference. It was not pressed by the executive committee, because of the action taken by the council of the Union excluding other major enterprises until *Biological Abstracts* can be well established. A number suggested concerted action toward more effective publication of research in view of the enormous number of titles that appear annually in the biological field. Professor C. W. Greene presented briefly for information of the conference a proposal for federal aid to basic scientific research that is being submitted to various scientific bodies during the present year. From the discussion of the Union and its functions it was evident that

no other undertaking of such importance as *Biological Abstracts* is attracting the attention of American biologists. There was, however, no disposition to shift responsibility for the *Abstracts* to some other organization. The conviction of the executive committee that the Union "must be preserved," at least until *Biological Abstracts* is permanently financed, and that other activities may wait upon future demands seemed to be that of the conference.

As the original financing of the Union is about exhausted, the conference discussed methods of rais-

ing money for advertising within the member-societies and otherwise promoting the interests of *Biological Abstracts*. The matter was referred to the executive committee for further discussion with officers of the societies. This advertising looks toward an increase in the subscription list of the *Abstracts*. Such an increase must occur if we expect to convince those who can provide for editorial costs that *Biological Abstracts* has the unquestionable support of biologists, not only in America, but in other countries, since it is an international enterprise.

BIOLOGICAL ABSTRACTS

By Dr. J. R. SCHRAMM

EDITOR-IN-CHIEF

ABOUT May 1, 1931, the funds in the original grant from the Rockefeller Foundation for the editorial conduct of *Biological Abstracts* will have been exhausted. Very recently (December 1 of last year) a continuing grant for two years was made by the Foundation. The present therefore marks the approximate close of the preliminary chapter in the development of *Biological Abstracts*, and it is thus appropriate that a report be made on the status of the undertaking. It will be well at the outset to outline the facts upon which the project was predicated.

Biological articles of a research character number at present over 50,000 a year. They are published in some 6,000 serials and in over twenty-five languages. They cover annually hundreds of thousands of pages, and cost millions of dollars a year to publish.

There exists no system of distribution of manuscripts by subjects to specific research journals. Even were such a plan devised it would soon be rendered ineffective by the rapidly changing character of the subject.

The necessity under these circumstances of instruments of orientation in the literature is obvious. With the phenomenal growth of the literature in biology, especially in this century, these have increasingly taken the form of abstracting journals in more or less highly specialized fields and are rendering great service.

Increasing specialization has brought with it, however, a corresponding insistent problem of synthesis; wholes have to be constructed from larger and larger numbers of smaller and smaller parts. For this purpose the highly specialized abstracting journal is less well adapted, for important progress in one field frequently springs from advances or suggestions from another, even a remote one, resulting in the intimate linking of fields considered relatively unrelated. Also,

between highly specialized abstracting journals extensive duplication is unavoidable.

Among striking examples of such integration may be mentioned: genetics and cytology, and between these subjects and systematics; plant and animal pathology and parasitology on the one hand, and entomology on the other, especially through the rôle of insects as pathogen vectors; cytology on the one hand, plant and animal pathology on the other; public health administration and systematics of disease vectors, *e.g.*, fleas, mosquitoes, etc.; economic entomology and plant ecology; protozoology and pathology; anatomy and physiology; serology, biochemistry and biophysics on the one hand, phylogeny on the other; bacteriology and plant pathology; systematics of poisonous animals and serum therapy, etc., etc.

Such changes, often abrupt, are largely unpredictable and frequently lead to marked changes in emphasis and give new direction to research endeavor. These developments are indicative of an increasing integration in which the various biological disciplines, not infrequently characterized by more or less isolation and lack of mutual understanding, are converging and each making substantial contributions to common problems.

Also, there is a growing realization that applied fields prosper best when firmly rooted in the more theoretical disciplines underlying them. That this association is fruitful to the theoretical fields as well is evident in the wealth of suggestions and problems contributed and in the vigorous personnel recruited.

The problem has its important economic aspects. Under a system of numerous specialized abstracting journals, it is not uncommon to find institutions expending annually from \$300 to \$800 and more on abstracting journals in biological subjects, though leaving considerable fields almost untouched. Prices of individual specialized journals have reached a