

## THE UNION AND BIOLOGICAL ABSTRACTS

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*Biological Abstracts* is the spontaneous outgrowth of a need, deeply felt by many groups of biologists, brought to fruition through an unusual degree of unanimity of opinion in a large and highly diversified series of separate societies. Organizations roughly represent current interests and opinions in any given field. The subjectivity and individuality of the biological mind finds expression in the score or more of national societies which give homes to those who, for a moment, find common intellectual companionship possible. A wide interest in biology necessitates, for the individual investigator, membership in as many as a dozen societies if he desires helpful associations. This tendency towards division and dispersion shows in the new biological societies still being formed in apparent opposition to the gradual breakdown of arbitrary divisions between parts of a subject, showing a natural unity. Such a scattering of forces makes a concerted effort in the interest of all biologists difficult or impossible. A realization of this organic weakness was doubtless the motive which led the secretary of the American Naturalists to call a conference of the secretaries of the various biological societies meeting in Chicago in 1921. The result of this conference was a request to the Division of Biology and Agriculture of the National Research Council to use its good offices in promoting some sort of common organization for all American biologists. Under the chairmanships of Dr. L. R. Jones and Dr. F. R. Lillie this eventuated in the Union of American Biological Societies.

At a meeting of the council of this new Union it was unanimously decided that the greatest present need in biology is a system of abstracts similar to that which has so well served chemical investigators for a quarter century. Over a period of several years a committee on publication and bibliography of the Division of Biology and Agriculture had been studying problems in this field; and the botanists, under the leadership of B. E. Livingston, chairman of this committee, had established *Botanical Abstracts*. The bacteriologists likewise undertook the publication of *Abstracts of Bacteriology* before the Union was established. The inherent weaknesses in partial services of this character had made themselves alarmingly apparent and the continued existence of these budding enterprises was seriously threatened. To bring together all the available experience in this new form of publication service there was established the Joint Publication Committee with equal numbers of representatives from the Division of Biology and Agriculture and from the Union. Later, representation of the A. A. A. S. was provided for. By this Joint Publi-

cation Committee a careful detailed study of the amount, character and distribution of current biological literature was made, existing bibliographic services were studied and compared, and finally complete plans for a comprehensive abstracting service in biology were drawn up. These were presented before various gatherings of biologists and published in *SCIENCE*, November 28, 1924.

At every step, representatives of the different societies were consulted to determine the character, scope and form of service that would best serve the workers in each particular field, the aim being not to construct a logical system but rather one of practical, workable character. This policy has been followed from the beginning, but since each individual has his own peculiar requirements, a journal serving thousands must follow a policy of compromise, seeking that which will serve the largest number. Finally, to be assured that each individual was as nearly satisfied as might be with the plans his representatives had formulated, a referendum vote was taken, and a surprising degree of unanimity disclosed in favor of proceeding to the practical execution of the project. Convinced of the worthiness of the undertaking and the strong opinion back of it, the National Research Council undertook to assist in finding financial support for it.

Experience in the administration of *Botanical Abstracts* and *Abstracts of Bacteriology* had persuaded those who were in charge that only a salaried editorial staff would be able to handle so ambitious an undertaking. At the same time it was believed that a price low enough to permit the individual worker to have his own copy of the journal would be necessary in order to secure maximum effectiveness in its use. The response to the questionnaire led to the belief that enough money would be derived from subscriptions to pay the costs of printing and distribution and so the request finally presented to the Rockefeller Foundation was for only the amount necessary to support the central editorial staff and its work. The soundness of the estimate was later demonstrated in the practical operation of the plans. Only an unexpected and entirely disproportionate increase in the bulk of biological literature following the war has served to modify the estimated cost of operating the system.

From the beginning it had been the judgment of all those intimately connected with the development of *Biological Abstracts* that the ultimate success of the project requires an international cooperation as general as can be secured amid the diversity of languages represented in the literature. Accordingly,

after plans had been drawn and approved as indicated, and tentative support secured, biological organizations and individuals in Europe were visited and the plans presented for suggestions and advice. Although the *Concilium Bibliographicum* and the *Zoological Record* occupy different fields from that proposed for *Biological Abstracts*, those in charge were consulted, and cooperation suggested. Always the effort was made not only to avoid injury to any existing service, but ways to make the anticipated facilities of *Biological Abstracts* actively helpful were sought.

Finally, after all the years of planning, and of innumerable discussions, the request for financial support, presented by the National Research Council, was granted by the Rockefeller Foundation, and *Biological Abstracts* was ready for launching. No one unfamiliar with the practical operation of such enterprises can imagine the difficulties and complexities involved in their organization and operation.

First, it was necessary to build up an operating staff out of almost untrained material. One invaluable person, without whom *Biological Abstracts* would have been inconceivable, had been available for the days of planning, and he was now called upon to take charge when plans were to be executed. Dr. J. R. Schramm, editor-in-chief of *Biological Abstracts*, put aside his scholastic career, and, starting from nothing, sought out promising material and began training an editorial and clerical staff which is now, and always has been, characterized by a high degree of efficiency and devotion. Printers were consulted about typography, experts in papers advised regarding details of their weight, opacity and durability, psychologists gave their judgment concerning the most readable size and arrangement of type, biological groups formulated workable taxonomic systems, and in these and many other ways the practical conduct of the journal was determined.

A periodical of the scope and character of *Biological Abstracts* can, at best, be only an approximation to the ideal of completeness and selectivity. No one so fully realizes what remains to be done to approach this ideal as do the members of the editorial staff, who have formulated the plans for achieving the objective established by the representatives of our biological societies. But even in its present form it has served

as a model for *Social Science Abstracts* and finds encouragement for the future in the words of the *London Lancet*:

If this is the state of affairs within the field of medicine, how hopeless it may seem to bring medicine into any sort of effective contact with the whole scattered field of biology. But courage can achieve most things, and a first step has been made by the promoters of *Biological Abstracts*, who in 1927 began a monthly publication with no smaller object than to summarize the whole of current publications in biology, to abstract the relevant parts of some 6,000 journals and to make the results available to everybody. Judging from their first two years, they have made a good start at what seemed at first an impossible task, and, aided by a grant from the Rockefeller Foundation, they have issued a periodical which no one can read, but which almost everyone can consult with profit. Biology as a whole is gathered up together, and so it is very much easier for outsiders to find out what is going on. Revelations come as often as not from browsing about a little outside one's own proper field. It has as yet to find its permanent field in conventional biology, though it has done enough to show that it deserves all encouragement and support.

By the aid of the Rockefeller Foundation and the helpful cooperation of over 3,000 collaborators and section editors, plus the self-sacrificing devotion of a group of biologists who have laid aside their own work and teaching for the drudgery of editorial service, every biologist may have as his own a key which will unlock the published records of biological research the world over for the small sum which he might pay for a hat or a pair of shoes. The response in subscriptions so far has been splendid, the journal having already the largest number of subscribers of any technical biological publication; but to reach the fulness and completeness of *Chemical Abstracts*, somewhat the same unified support which it commands will be required. Those who have been charged by their fellow workers with the heavy responsibility of bringing to fruition their hopes for a prompt, accurate and full report upon current biological literature believe that it is necessary only to let it be known that now full support from individual workers must be forthcoming in order to secure the subscriptions that were provisionally promised in the referendum. In a very real sense it may be said that the future of *Biological Abstracts* is now in the hands of those whom it serves.

## THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

### PRELIMINARY ANNOUNCEMENT OF THE PASADENA MEETING

By Dr. CHARLES F. ROOS, Permanent Secretary

ABOUT twenty-five scientific societies, together with the fifteen sections of the American Association for

the Advancement of Science, will hold scientific sessions at Pasadena from June 15 to 20. This will be