literary, discussions of science and ethics. Others dealt with the history or philosophy of science or of particular sciences, which are better covered in other bibliographies. To quote the foreword:

> Part I includes not all kinds of studies pertinent to the relations of literature and science, but almost exclusively studies in which those relations are directly discussed. Part II includes not philosophers who have discussed science nor scientists who have influenced literature, but almost exclusively literary figures whose relations to science have been more or less seriously studied. In this area the bibliography is not rigorously selective, but—though doubtless far from exhaustive—is intended to be reasonably complete.

As finally released at the Stanford convention in September 1949, the list is a neat multilithed pamphlet (*10*) of 59 pages. The small edition was sold out within a year, and no reprinting is in prospect. Many of the purchasers, however, were libraries. Copies are available on nearly a hundred campuses and in about a dozen public and half a dozen research libraries.

From the shorter annual list for 1950, a selection (*11*) edited by Fuerst (Indiana) and Williams (Illinois Institute of Technology) was published in *Symposium* for November 1951. General studies are listed first; studies on individual authors or particular periods follow in three chronological groups. In 1952 and thereafter, the list for the preceding year is to come out in May. *Symposium* will thus provide annual selected lists of published works on the relations of literature and science.

No doubt the main users will be literary scholars. But if among our scientific colleagues there are persons curious about such matters, these lists may help them to locate publications of interest. Should such exploration bring about a closer understanding between the two areas of study, the literary scholar may be aided in reducing his ignorance of science.

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Books and Scientific Meetings

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Society of Systematic Zoology

MOST SCIENTISTS who have attended conventions of the AAAS are familiar with the exhibits of the book publishing houses at the Exposition of Science and Industry, an annual event of large proportions and considerable popularity. Usually about 25 publishers engage separate booths, each displaying his technical publications. Some of these publishers and about 20 to 30 others combine their books in the Science Library, in which books are arranged by subject rather than by publisher. Probably more than 1000 different books are exhibited; the Science Library alone contains 500–800.

It is not claimed that these exhibits contain all the available scientific books. They usually include only the publishers' most recent productions—new books and reprints. Large publishers of technical works generally take advantage of this opportunity to display their current items.

The Science Exposition has proved to be well worth while for both the exhibitors and the delegates. Nevertheless, it is not an ideal place to increase one's knowledge of the available current books in any particular field. For persons who do not know just what books they wish to see, the arrangement by publishers is not always satisfactory. Even after browsing through all the booths, one has no assurance that he has seen all the current books, and except in the Science Library direct comparisons of volumes are difficult or impossible.

In some phases of scientific work, especially in teaching, books are of great interest and importance. In certain fields of science, such as systematic biology, books are produced in considerable numbers, with a wide range of approach, including advanced works of reference, texts for all levels, technical books for the nonprofessional, popular books for the general reading public, and books for children. A scien-

tist comes in contact with all these in various ways, as author or teacher, critic or reader. Any means that will make the available books better known to scientists is worth a trial.

Systematic zoology embraces the study of kinds of animals, their different natures and distribution, their history and evolution, their distinguishing characteristics and classification. Large numbers of books have been written in this field, especially in recent years—perhaps a thousand are now available. There is no easy way to survey this imposing array of written material and no one place to inquire if there is some one book among the thousand that will serve a particular purpose. Aside from those libraries that endeavor to obtain all books in their specialties, scientific organizations have generally used but one method to acquaint their members with books—that of listing or reviewing new publications. This is seldom a systematic process. It is usually incomplete and sometimes quite restricted in coverage.

Because of the strong interest that has been taken in books in its field, the Society of Systematic Zoology has developed three plans to bring to the attention of biologists the recent books in the basic zoological sciences. One of these plans has been in operation, successfully, for two years; another is being developed as a project for publication in the near future; and the third is to be a new feature at the St. Louis meeting of the AAAS (December 27–30, 1952). All three plans result in publicity for the books, with two of them tending to give complete presentations of the available items in the field.

Under the first plan, an exhibit differing only in scope, arrangement, and utility from book displays in the Exposition is held at each meeting of the society. The society has accumulated a specialized library that is approaching completeness in the field of systematics, and is also rich in other aspects of zoology—especially in textbooks. The books, which are generously donated by the publishers for the purpose, are exhibited as the property of the society in a manner designed to emphasize their nature and the part of the animal kingdom treated, rather than the publisher or the author. They are placed in a lounge at the hotel headquarters of the society, and an invitation is extended to all zoologists to examine, peruse, and discuss the volumes, or to take notes, or simply to while away an hour with a book of interest.

These book exhibits are held not only at the AAAS meetings but also at other meetings of zoologists throughout the country and throughout the year, whenever appropriate. Selections of books are sent to meetings of more specialized societies. Even this multiple exhibit, however, reaches only a small minority of the members of the society, scattered as they are throughout the United States and a number of foreign countries.

In order to bring these benefits to the rest of the membership and to extend the service rendered the cooperating publishers, a complete list of the books is published by the society (*News Letter*, [4], [April 1951]; *Systematic Zoology*, **1**, [1], [March 1952]). Here the listings are by general subject matter, as well as by publisher. Besides the subject and publisher, information given includes the title, the publisher's address, the number of pages, the year of publication, and the price. More than 350 works are now included in this specialized library.

It is impossible to mention more than a few of the books here, but examples will indicate the scope of the collection. Reference works are given a prominent place—the five volumes of Neave's *Nomenclator Zoologicus* and the familiar *Zoological Record*, so essential to all taxonomic work. The *Record* is represented by three complete volumes, as well as by sets of the 19 sections in which it is also published.

There are eleven recent journals. Among them are the *Wasmann Journal of Biology*, the *Bulletin of the Serological Museum*, and the *Bulletin of Marine Science of the Gulf and Caribbean*.

Among the fields of zoology represented are paleontology (Twenhofel and Shrock, *Invertebrate Paleontology*, and Smith, *The World of the Past*); comparative anatomy (Romer, *The Vertebrate Body*, and McEwen, *Vertebrate Embryology*); evolution (Blum, *Time's Arrow and Evolution*, and Jepsen, Mayr, and Simpson, *Genetics, Paleontology, and Evolution*); genetics (Riley, *Introduction to Genetics and Cytogenetics*, and Dunn, *Genetics in the 20th Century*); ecology (Clements and Shelford, *Bio-ecology*, and Hesse, Allee, and Schmidt, *Ecological Animal Geography*); history (Meyer, *The Rise of Embryology*, and Locy, *Biology and its Makers*); natural history (Bates, *The Nature of Natural History*, and Beebe, *The Edge of the Jungle*); methods (Baker, *Cytological Technique*, and Welch, *Limnological Methods*); general biology and zoology texts; conservation; and books on animals for children.

The more specialized systematic books include works on invertebrates (Hyman, *The Invertebrates, I, II, III*, and Pratt, *A Manual of the Common Invertebrate Animals*); protozoans (Kudo, *Protozoology*, and Jahn, *How to Know the Protozoa*); parasitology (Chandler, *Introduction to Parasitology*, and Goody, *Soil and Freshwater Nematodes*); mollusks (Morris, *A Field Guide to the Shells*, and Keep and Baily, *West Coast Shells*); arachnids (Gertsch, *American Spiders*); insects (Ross, *A Textbook of Entomology*, and Klots, *A Field Guide to the Butterflies*); fishes (Breder, *Field Book of Marine Fishes of the Atlantic Coast*, and Hubbs and Lagler, *Fishes of the Great Lakes Region*); amphibians and reptiles (Pickwell, *Amphibians and Reptiles of the Pacific States*, and Ditmars, *A Field Book of North American Snakes*); birds (Peters, *Check-list of Birds of the World*, and Saunders, *A Guide to Bird Songs*); and mammals (Orr, *Mammals of Lake Tahoe*, and Cahalane, *Mammals of North America*).

These are but a few of the many books in each category. The special fields of college zoology and biology texts are well represented, for many systematic zoologists are also teachers of zoology or biology. One

botanical book has found a place in this collection: Fernald's eighth edition of Gray's *Manual of Botany,* long familiar to zoologists and much used by them.

This library contains much more than purely systematic works, although some descriptive monographs are also included. Its scope is larger than the field normally covered by the Society of Systematic Zoology, in order to include subject matter of interest to research taxonomists, ecologists, evolutionists, anatomists, zoology teachers, amateur naturalists, and others interested in animals. The exhibit has increased in popularity at successive meetings—to such an extent that it has now become a regular feature of all SSZ meetings.

The second plan is an outgrowth of the first. There is still the need for means of finding out what books are available on a particular subject. It is believed that a list of all zoological books in print (that is, currently available from the publishers), classified by subject matter, and giving information on price, size, where to order, the edition available, etc., would prove useful, and that it could be produced with the help of the publishers. Preliminary work is now being done on this project.

Many new books are reviewed in current periodicals, in such special journals as the *Quarterly Review of Biology* and the *U. S. Quarterly Book Review,* in such general ones as *The American Scientist* and THE SCIENTIFIC MONTHLY, and in more specialized ones such as *The Journal of Mammalogy* and the *Annals of the Entomological Society of America.* Often a book is reviewed in several journals. The reviews range from mere notices of publication to careful critiques.

The large number of reviews indicates that they are useful, but their unsystematic arrangement, the great variety of publications issuing them, and the general lack of indexing make them a difficult source of information regarding any specific book. For keeping up with current publications in a general way they are, however, quite useful.

In the list of books in print, envisioned above, it would be useful to list under each book the reviews of it that have been published. The reader could then readily ascertain the opinions of the reviewers in order to judge whether a particular book would meet his needs. But the question at once arises: Is the considerable work of assembling the references to all these reviews justified by the use that would be made of them? On the answer to that question hinges this feature of the project.

The third plan for increasing knowledge of, and interest in, books is also coupled to the annual meeting of the society. This is to take the form of a special panel discussion of one or more specific books, with the author of the book and a selected group of specialists from related fields as participants. The intent is to draw from the author ideas on the implications of his book in other fields of study, to bring out the special contributions of the book itself, and to determine the extent to which the book's conclusions are supported by data from other fields.

Scheduled for the 1952 meeting in St. Louis is a discussion of *Time's Arrow and Evolution,* by H. F. Blum, one of the most significant, as well as one of the most technical, of the recent books on evolution. Despite the fact that it has been called a "mind-stretching book," it is hoped that discussion, guided by the author, will enable the attending minds to understand at least part of its important message.

Also definitely scheduled is another important discussion of evolution from the systematic zoologists' viewpoint rather than from the biochemists'. *The Meaning of Evolution,* by G. G. Simpson, has proved to be one of the most popular books on this subject, having already passed through at least five editions. By "popular" we do not mean to imply that it is elementary, but rather that its style is so lucid, its data are so authoritative, and its language is so nontechnical that it can be understood by any educated person and enjoyed by all.

One or two sessions are also being planned to consider textbooks in general zoology and general biology. In these, two or three books written from different viewpoints but on the same level will be contrasted. With help from the authors and other panel members, the advantages of the ecological approach, the systematic approach, and the approach through principles will be compared. It is hoped that teachers of elementary college courses will find these sessions of interest and assistance in planning their own approach to the subject.