

VIII. LITERATURE ON CORAL ATOLLS

In any serious research project an essential and unavoidable task is to become familiar with what is already known on the subject. The reasons for doing this are not merely to avoid pointless duplication of effort, but to establish a basis for comparison of results, to build a framework of established information into which to fit new findings, to avoid the errors and blind alleys of past work, and to give breadth enough to acquire understanding as well as accumulating information.

In the past it has usually been possible for any individual to depend on his own efforts in becoming acquainted with old literature and keeping abreast of current work. In recent years, however, the sheer volume of publication is such that in a field of any breadth a worker's full time could be spent doing nothing but studying the work of others. Various solutions to this problem are available.

Ignoring the work of others is so limiting that it need not be considered. Narrower and narrower specialization is the commonest path chosen, but the evil effects of this in limitation of understanding and complete loss of over-all significance of work are all too evident. Division of labor along another line is also being more and more resorted to with considerable success. This path lies in the preparation of annotated bibliographies, subject indices, and comprehensive reviews and digests of findings in broad or restricted fields by certain workers whose breadth of background and natural inclinations make them fitted for it. Though, since the days of Agassiz' dictum "Study Nature, not books", there has been a certain stigma attached to bibliographic work and a resentment about money spent for it, there is no question that the realities of the situation are forcing scientists to make more and more use of the work of the professional bibliographer. The success of such review journals as Botanical Review, Quarterly Review of Biology, and various industrial scientific journals, as well as the existence of a half-million dollar contract between the U. S. Navy and the Library of Congress to review the results of research sponsored by the Navy alone are ample evidence of the truth of this.

For several reasons the bibliographic work of the atoll project got off to a slow start. However, during the past four months a truly notable amount of work has been accomplished, largely due to the efforts of my capable assistant, Miss Sachet.

On logical, as well as practical grounds, the bibliographic work on atolls divides itself into four major segments. These may be concisely termed marine geology, marine ecology, land ecology, and anthropology. Our efforts, up to the present, have been concentrated on the third of these major divisions. It is felt that the monumental bibliography brought together by W. M. Davis in his volume on The Coral Reef Problem, in 1928, together with the unexcelled

bibliographic services of modern American geology, largely eliminate the need for any intensive work on marine geological bibliography. Marine ecology and anthropology are such extensive and important fields, in themselves, and with such enormous literatures, that the resources of the present bibliographic phase of the project would be dissipated without significant results if an effort were made to include them. Furthermore, it is felt that in fields of such great practical and popular interest it should not be very hard to secure funds for comprehensive bibliographic studies if the workers in these fields feel the necessity for them.

The field of land ecology has been construed as broadly as is necessary to cover the entire literature on atolls that is left after the other three segments have been removed. It includes the geography, the land geology, the climatology, the water supply, the soils, the vegetation, the fauna and flora, the economic plants, the agriculture, and the uses made of the natural resources by the people.

The bibliographic work on this divides itself naturally into two parts, the location and evaluation of the literature that exists, and the abstracting and organization of the part of this that seems significant and useful.

The first part results in an annotated bibliography of all the literature known on atolls, with annotations describing and evaluating the content of the papers sufficiently to enable the user to determine which papers he should consult for his own purposes. This includes a subject cross index to make it easily and efficiently used. This bibliography is nearly complete, though there will be many papers that will turn up that we have overlooked, especially in the field of systematic zoology. It is hoped that we have the most important ones. The total number of papers has turned out to be about twice as many as we estimated at the beginning. We hope to be able to find a publisher for this work to make it available generally. Meanwhile, a preliminary manuscript is being typed which will be deposited in the Pacific Science Board offices in Washington and Honolulu, and the files are being kept open for additions and for consultation, by the Pacific Vegetation Project.

For the second part we have set up a series of filing folders, classified in every way that we can think will be significant. Into these we are putting information abstracted from the papers that seem to be of enough interest to be worth abstracting. Copies or cross references are inserted for each item in every folder where it is pertinent. A copy of the abstracts is sent to the Honolulu office so that a duplicate file may be kept there. A visit was made to Yale University, where all material fitting into this scheme in the Cross Cultural Survey files was copied for insertion into this system. In addition, unpublished field notes are included wherever available. Though much information has already been inserted, an enormous amount remains to be done on this part of the project.

It is contemplated that, as time goes on, digests may be made and issued of the information accumulated on specific fields based on this abstracted data. It may be possible, after the greater part of the abstracting is done, to prepare

such digests to order to meet the needs of individual workers on the project. This would save much preliminary work for those engaged in the various aspects of the project, and might well save them from overlooking important information, and might direct their researches into important fields that could be overlooked otherwise.

It is felt that with another year of work, this bibliography and abstract file will be an extremely effective aid to atoll research. It also may serve as a model for similar work in the other major divisions of the atoll field.

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