bor on board the United States ship *Tanager,* and will be returned to Washington *via* Navy transport. During the passage of the *Tanager* from Niuafou to Tutuila, a heavy gale was encountered and the *Tanager* was compelled to lie to for 18 hours in order to insure the safety of the eclipse records and equipment. Maximum rolls of 48 degrees to a side were recorded during the height of the gale.

THE Hydrographic Office of the Navy celebrated on December 6 a century of assistance in making navigation of the sea safe throughout the world. As a part of the program Secretary Adams delivered an address which was broadcast by radio on the history and work of the office. The centennial marks the progress made from the time the office was established under Lieutenant L. M. Goldsborough as a "depot of charts and instruments," with a working force of two officers and one nautical expert. It now has a working force of eleven officers and 180 civilians and nineteen branch offices in the continental United States in charge of twenty officers and twenty-four civilians. The office has 300,000 charts and 100,000 manuals and books ready for issue. On its correspondence list are 7,000 mariners and aviators of all nationalities. It receives information from naval vessels, American consuls, scientific organizations and foreign governments, and exchanges information with the hydrographic offices of other navies. The office also sends out by naval radio broadcast information received from the ice patrol, merchant vessels and other sources concerning dangers to navigation; conducts hydrographic surveys and maintains a section of static research which hopes through experiments to locate the centres of West Indian hurricanes soon after their formation and predict their subsequent path.

DISCUSSION

AN APPEAL FOR THE ISSUANCE OF REPRINTS OF THE TABLES OF CONTENTS OF SCIENTIFIC JOURNALS

IF scientific journals would offer for sale, with each number of the journal, reprints of the table of contents, I believe that the journals would thereby perform a real service to many of their readers and could perhaps make a small profit.

Take as an illustration the journals which are devoted partly or wholly to physics, and consider the use which an American physicist, John Smith, would make of these reprints. John Smith would not care about the reprints offered by the *Physical Review* because as a member of the American Physical Society he receives a personal copy of the *Review,* but he would consider it a distinct service if he could have placed upon his desk a reprint of the table of contents of each number of the *Proceedings of the National Academy,* the *Proceedings of the Royal Society,* the *Zeitschrift für Physik,* etc., when the number appears. Our physicist does not subscribe personally to these journals but he has access to a library which subscribes to all the journals in which he is interested. If the managements of the journals offered to furnish the reprints, John Smith and his colleagues would arrange with the library to subscribe for the desired number of reprints, and they would reimburse the library if necessary for the small outlay involved. The reprints could be sent to the library with the journal itself, thus avoiding extra wrapping and postage. The reprints would be sent only to those libraries subscribing for them say in lots of three, six, nine, etc. A dollar and a half or two dollars per year should provide John Smith with reprints from a half dozen monthly journals. He checks off upon his reprints the articles in which he is interested, and when next he has an hour to spend in the library he knows exactly what new numbers of journals have come in and what he wants to read in them. The reprints, as they accumulate, serve John Smith as a nucleus of his personal reference file. If he desires, he can have a typist transcribe the titles which he has checked to an author index or a subject index. It is far less feasible for a member of a staff to furnish a typist with the journals themselves as copy, as he must do under existing circumstances when he wishes titles transcribed.

In a university the reprints would be of service interdepartmentally. At present a man in one department must go to libraries scattered all over the campus if he wishes to keep up with the publications of some of the learned societies, as for instance those of the Berlin Academy, and with some of the journals in allied fields. But with the reprints available he would first consult the table of contents of the publications in his own library where files of these could be provided at trifling expense.

It takes little imagination to realize that the reprints would render service in several ways not at all rendered by abstract journals, such as *Science Abstracts,* which are always several months behind.

A given journal might conceivably suffer the loss of two or three personal subscriptions through supplying border-line subscribers with an inexpensive method of keeping in touch with its table of contents.

The number of subscriptions so lost would certainly be very small however. The management of a journal could recoup itself for this loss and even make a small profit by charging for the reprints several times the cost of output—and they might still be quite inexpensive.

For the reprints to be of real service to workers in one field of knowledge, most of the leading journals in that field should offer them. This would require something approaching concerted action on the part of the journals and such action will perhaps be difficult to secure.

This appeal is written with the principal object for the present of arousing, if possible, widespread consideration and discussion of the desirability of having the reprints. If, upon consideration, a large proportion of scientific workers come to believe that the reprints would be of service and should be available, then the journals would probably offer them provided the journals were apprized of the generality of this belief. Further discussion of the subject on the part of others than the writer in the columns of SCIENCE or elsewhere would no doubt help in the apprizing. Or, if representatives of departments or laboratories would write, on behalf of the groups which they represent, to the various journals whose reprints they would like to have, this would be a beginning. The journals might be induced by such letters to make inquiry among the libraries on their subscription list to determine approximately the total number of reprints wanted. However, it may develop that the very demand would require cultivation. Is it too much to hope that one or more journals may undertake this cultivation by offering the reprints over a period of years? Be this as it may, I personally feel convinced that the reprints are something we should have; if others who now feel or come to feel likewise, will put forth some small effort which they consider suitable by way of agitating the matter, perhaps we shall some day have them.

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MITOCHONDRIAL BEHAVIOR

AN article on "Mitochondrial Behaviour during the Life-cycle of a Sporozoon (Monocystis)" in a recent number (July, 1929) of the *Quarterly Journal of Microscopical Science* suggests several queries. The paper states that material was obtained from "the sperm-sacs of the common Australian (European) earthworm." "Sperm-sacs" presumably refers to those organs which oligochaetologists call seminal vesicles, although the term sperm-sac has also been used for testis-sac or testicular chamber as well as for spermatheca. But what is meant by "the common Australian (European) earthworm"? Again presumably this refers to one of the peregrine Lumbricids that have been imported into Australia and which have become acclimated in settled areas around towns and cities. But which one? At least six species of Lumbricids have been recorded from Australia: *Eiseniella tetraedra, Eisenia foetida, Allolobophora caliginosa, Bimastus parvus, Bimastus constrictus* and *Octolasium lacteum*. These worms when found elsewhere are usually present in considerable numbers, so that to each one of them the adjective common might be applied. Thus an investigator who procures his earthworms from manure piles might regard *E. foetida* as the common species, while another investigator who gets his material from the very same locality but at a distance of a very few feet from the manure piles would probably find another species to be the common form. Similarly, a thick grove or river bank only a short distance from both the preceding places might have still other common species. The phrase "the common earthworm" in such a region must therefore be nearly as meaningless as "the common bird" or "the common fish" would be. It is of course possible that of the earthworms in the vicinity of Melbourne such an overwhelming majority belong to one particular species as to justify use of the words "the common" in referring to it, but no evidence for this has been found in the literature, and even were this the case, outsiders can hardly be expected to know what the common European earthworm of Australia might be.

In this connection may I call attention to a few sentences in Stephenson's "The Oligochaeta" which, because of their situation in the preface, may not receive the consideration to which they are entitled.

> While on the subject of nomenclature, may I suggest, more particularly perhaps to some of the authors who write on physiological subjects (although morphologists are not invariably above suspicion in the matter), that they should identify, or get identified, their material? It is not nowadays sufficient to talk of "the earthworm"; there are 1,800 species. . . . "The common earthworm," too, is meaningless—what is the common earthworm in one part of the country is not so in another; while the specious appearance of exactitude given by the phrase "the common earthworm, *Lumbricus terrestris*," is (at least as a rule) entirely fallacious.

Furthermore, the author of the paper under consideration did not state which one of the species of *Monocystis* that occur in the seminal vesicles of earthworms he studied. The importance of such systematic precautions is made quite evident by the fact that "there may be as many as five different species pres-