there is difference of opinion with regard to the place that genetics holds in the interest of the average zoologist, anatomist, botanist, etc., but the assumption is, on the part of the officers of the Naturalists, that the field is sufficiently broad and fundamental to embrace the interests of men from all fields of biological work. Personally, I am interested in genetics, from the general standpoint, but the minutiæ are as technical and demand as close attention as any other field of biological work. The terminology and treatment of the science of genetics are changing daily and unless one take this as his special field of work he finds difficulty in following the discussions. There is another point, too, in this connection: I am not willing to admit that the data of genetics are any more fundamental than the data of other lines of endeavor, as for instance, the subject of development or of differentiation, or of metabolism, or one of a half dozen other things. Genetic development is but one group of phenomena in the ensemble we know as a living thing, even if it is an important one.

It is impossible for the Naturalists to justly solicit membership from botanists, geologists, psychologists, anthropologists and from other departments of science and expect these members to attend the meetings of the Naturalists when this organization meets in cities other than the one in which the special societies are meeting. At least it is not fair to the members of the other societies, who are at the same time members of the Naturalists. If it is the mountain and Mahommed, the mountain will not come to the prophet; of this I am quite sure.

Another point: The field of zoology is so wide and is so intimately connected with many other fields that no one cares to risk his reputation for logical thinking in fixing the limits of this science. Its devotees are not all embryologists, nor students of regeneration, nor of vertebrate anatomy; many of them are interested in animal psychology and others are interested in the physiological aspects of zoology, which stand on the border land between these sciences and zoology *sensu A.S.Z.* (!) Now meeting at Washington and in affiliation with the American Association for the Advancement of Science are several societies which yearly present papers of direct interest to our members, whose research in comparative psychology or animal behavior causes them to have this interest in the programs of the psychological associations, such as the American Psychological Association and the Southern Society. There are a number of papers presented before the Biochemists and Physiologists which are of interest to other members of the Zoologists and of the Anatomists. Now I wish to submit: Is it fair to these men to demand that they be loyal to the Zoologists and forego the pleasure and profit of attending such meetings in other departments as they desire? Do the reasons given above for isolating the meetings of the zoologists and anatomists compensate for this desideratum? I do not think they do.

It is my impression that there are a number of men whose views coincide with the ones expressed here and this is the *raison d'être* for this communication.

M. W. Morse

## REGARDING PAYING THE EXPENSES OF STATION WORKERS TO SCIENTIFIC MEETINGS

The American Association of Agricultural Colleges and Experiment Stations at their meeting at Columbus in November passed the recommendation of their Committee on Station Organization and Policy, which reads as follows:

"At the request of one of the societies, with which members of the station's staffs would naturally be associated, the question of members of the staff attending the meetings of the scientific societies was discussed. Your committee believes that the leading members of the staff should, for their own sakes, so far as they are able, attend the sessions of at least one such society annually. It also believes that the station administration should be alive to the fact that there are frequently meetings and conventions at which the best

interests of the station demand that it be represented. In such cases, the proper official should be sent as the station's representative and at its expense."

This was brought to the attention of the committee by the American Association of Economic Entomologists, but of course applies to all divisions of the experiment stations. The details of such arrangements are to be regarded as matters belonging to the administration and they are naturally left to the officers of each institution concerned. The association can not, of course, dictate to directors or boards of trustees; the above is, therefore, to be regarded only in the light of a recommendation showing the sentiment of the association.

F. L. WASHBURN,
*President of the Am. Assoc. of Economic Entomologists*

## SCIENTIFIC BOOKS

*Introduction to Psychology.* By ROBERT M. YERKES. New York, Henry Holt & Co. 1911. Pp. xii + 427.

*The Essentials of Psychology.* By W. B. PILLSBURY. New York, The Macmillan Company. 1911. Pp. xi + 362.

*An Introduction to Experimental Psychology.* By CHARLES S. MYERS. Cambridge, University Press. 1911. Pp. vi + 156.

*Elements of Physiological Psychology.* By GEORGE TRUMBULL LADD and ROBERT SESSIONS WOODWORTH. (Thoroughly revised and rewritten.) New York, Charles Scribner's Sons. 1911. Pp. xix + 704.

The present year has been an unusually fruitful one in systematic works on psychology. Of the above-noted four text-books in English, three are by Americans. One is an elementary introduction to experimental research, another is a compendium of physiological psychology, and two are general outlines of psychology by writers long known for their special contributions, who have not hitherto given us surveys of the whole science.

The works of Yerkes and Pillsbury form an interesting contrast in standpoint. Professor Pillsbury, trained in a school which regards introspection as final arbiter, takes a remarkably objective attitude in his book. Psychology is treated as the science of behavior, and the structure and functions of the nervous system receive prominent attention. On the other hand, Professor Yerkes, whose investigations in animal psychology would suggest a predilection for objective criteria, proves to be an out-and-out introspectionist, and omits the customary discussion of the nervous system on the ground that it does not belong in a psychological text-book; nervous structure and animal behavior are merely "signs of consciousness."

Professor Yerkes's book is a capital introduction to scientific psychology. It outlines the fundamental facts, emphasizing the classic "descriptive" psychology, but at the same time seeking to familiarize students with the more important experimental and genetic work. Of its six parts, the first is introductory and discusses the scope and methods of the science; four deal with particular aspects of psychology; while the last part indicates some practical applications.

Part I. examines the relations of psychology to physical science. The data are shown to be substantially the same; but physics and chemistry treat the common material from the objective standpoint, while psychology views it subjectively. It is on the basis of this distinction that the author emphasizes introspection and subordinates behavior to consciousness throughout the work. This part contains an unusually interesting critique of scientific method, well worked out, though possibly too detailed for beginners. In place of the usual terms "observation" and "experiment," the distinction is more logically entitled "naturalistic" and "experimental" observation (p. 45).

Part II. is devoted to descriptive psychology. Professor Yerkes is a champion of the structural psychology, and believes that the first aim of the science is to discover the constitution of consciousness. His account of the