insects suggests exceedingly high rates of evolution, unless they were able to survive glaciation. The incomplete knowledge of the other sub-Antarctic islands and of the insect life of New Zealand itself does not yet permit final zoogeographic conclusions. The composition of the fauna suggests to me that all of it arrived by cross-oceanic dispersal, but Gressitt leaves the door open for the possibility that some of the elements are relicts of a formerly more widely spread fauna that occurred on a now submerged sub-Antarctic land mass which was connected with New Zealand.

In addition to the taxonomic accounts (pages 45 to 514, and pages 601 to 652) there are informative surveys of the climate, geography, geology, botany, and ecology of Campbell Island. There are interesting discussions on the evolution of winglessness, and most revealing reports on the capture of insects in continuously operating insect traps. The volume confirms the impression that the study of island faunas still yields interesting results, and we must be grateful to those who undertake such exploration in spite of the great hardships that are involved. The Bernice P. Bishop Museum is to be congratulated on the publication of this valuable series of monographs of Pacific insects.

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Reproduction, Water Metabolism, and Hibernation

Physiological Mammalogy. vol. 2, *Mammalian Reactions to Stressful Environments*. William V. Mayer and Richard G. Van Gelder, Eds. Academic Press, New York, 1965. xii + 326 pp. Illus. $11.50.

Unless a reviewer wishes to write something different and erudite, he can follow one of three courses: (i) he can describe the contents of the book and thus serve as a cataloger, (ii) he can read and comment on the book, its information, its ideas, its qualities, or (iii) he can talk about the book *he* thinks should have been written. I shall limit myself to the first two points and only raise a question in regard to the third alternative.

Although the first volume in this series was a disappointment to a physiologist (its title was *Mammalian Populations*), the present volume promises better. Its three chapters deal with reproduction, water metabolism, and hibernation, and each chapter is written by a competent and experienced author.

Because my knowledge of the vast literature on reproduction is limited and not very up-to-date, I was delighted to have an opportunity to catch up on recent developments in this interesting field. S. A. Asdell has produced a short chapter that is well written and well organized but, as far as I can judge, quite inadequate in its coverage. The reading was easy, but I found little information that seemed new and exciting; for example, information on implantation is practically absent, although this subject has been discussed in several symposia. When I looked for an evaluation of such interesting material as Sharman's studies of marsupial reproduction, I discovered that the entire bibliography has only one single reference dated later than 1959. Note that the book was published in 1965 and that the editors' preface (dated November 1964) states that "Volume III, upon which the Editors are currently working, will continue the same caliber of scholarly coverage. . . ."

The second chapter, "Water metabolism of mammals," deals with a subject that has seen a rapidly increasing activity in recent years, and one about which many other reviews have been written. Nevertheless, Robert Chew has produced a chapter which has a broad coverage and deals with much material that has not previously been brought together. It is presented in logical outline, detailed information is used to support generalizations, and many tables contain a wealth of compiled data with detailed references. This chapter makes interesting reading for anyone from the graduate student to the research worker in the field.

The third chapter, on hibernation, is the work of Charles Kayser (of Strasbourg), who has worked and published in this field for three decades. Within the allotted space, some 100 pages, Kayser gives an adequate review of hibernation, with an abundance of information included. In view of the many other excellent reviews of hibernation that have recently appeared, I am somewhat disappointed by the lack of emphasis on general principles in this particular one. There is a lack of clarity which perhaps is due to the inclusion of much old information, interesting but often of semianecdotal nature. It is not that more recent studies have been omitted, but rather that, in the overall picture, they do not have the place that they deserve as contributions toward the understanding of principles.

There was a time when the production of a book was difficult if the author resided abroad. However, this does not hold when by air mail France can be reached about as fast as California. It is therefore discouraging to find such glaring technical errors in this expensive book as the reappearance on page 238 (in identical form but with a different caption) of the graph first given on page 191. (Whether this is the fault of the author or publisher I do not know, but it is not the first time that this particular publisher has proved disappointing; last year the firm even published a figure that was clearly marked for deletion with a big cross in the proofs—that is, the wrong graph as well as the deleting cross appeared in the published volume—*The Red Blood Cell*, Academic Press, New York, 1964, p. 101).

I do not feel that a reviewer should venture into the third category of choices available to a reviewer and say how a book should have been written. However, I think it is legitimate for him to raise a question and ask *why* a book was published and what purpose it serves. This book does not live up to its title in that it covers but three specialized fields. Of the three chapters, one (on reproduction) is limited to generalities, and one (on hibernation) deals with a subject that for years has been reviewed and reviewed again. With long delays in publication, production errors, a misleading title, and only a minor part of the book constituting a contribution beyond other available treatments, why was the book published to begin with?

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