

PREFACE

Volume I of this series dealt with mammalian populations, their social use of space, and the reciprocal role of endocrines and populations. This volume begins with an essay on the physiology and morphology of reproduction and development, both of which are affected by population size as pointed out by J. J. Christian in Volume I. Thus, while the Asdell article does not stress reproduction in a population sense, nonetheless, it provides the essential normal physiological and morphological information necessary for the comprehension of the changes wrought by stress during the reproductive period.

“Water Metabolism of Mammals” by Robert Chew and “Hibernation” by Charles Kayser complete this volume. These two essays discuss physiological, morphological, and behavioral adaptations of mammals to stressful environmental conditions. In the former, adaptation of metabolism to a limited water supply is discussed, while in the latter a mechanism for escaping a harsh sequence of climatic events is dealt with.

As in Volume I, the emphasis is on other than the normal laboratory mammals. While it is obvious that it is necessary to consider data on domestic animals from which the bulk of our knowledge has so far been derived, this volume continues to emphasize the less-studied “wild” mammal in order to make available to the mammalogist, physiologist, ecologist, and behaviorist the wealth of data found in the widely scattered works of research scientists of diverse experimental interests. Both experimental animal biologists and those who work with mammals in any capacity will find these volumes of value in their studies.

The authors in this volume have provided provocative observations to which research biologists and students might well address themselves. The extensive literature coverage for each of the topics included is such as to allow each contribution to serve as a bibliographic base line for future studies. The reader will find that these are more than simply review articles, however, for the authors have, in addition to covering the available literature, intercalated their own data and conclusions so that the articles constitute, in part at least, original contributions to the subject presented.

Volume III, upon which the Editors are currently working, will continue the same caliber of scholarly coverage which the authors included in Volumes I and II.

Any success this volume may enjoy is a result of the authoritative scholarship of its individual contributors. The Editors assume responsibility for any defects of organization or inadvertent errors which may be found.

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