

BOOK REVIEWS

Statistical Methodology in Malaria Work, by SATYA SWAROOP. World Health Organization/HS/58. Rev. 1, 2 September, 1957. 264 pp.

With the present world-wide emphasis on malaria eradication, it is highly important that workers involved in malaria research and control programs follow scientific methods free of personal bias and that they utilize standard procedures in experimental design and analysis. Satya Swaroop's book will be a real help to serious workers who wish to meet these standards. It is not a substitute for standard textbooks on statistics or malariometry but rather a guide to assist malariologists in adopting and utilizing appropriate statistical techniques and in establishing more effective collaboration with their statistical coworkers.

The book outlines the basic approaches for planning malaria investigations and for collecting, recording, tabulating, analyzing, and drawing conclusions from the data obtained. It gives a good introduction to statistical concepts, terminology, and methodology. Examples used cover a wide variety of the special problems involved in malaria eradication, including health and vital statistics, chemotherapy, and evaluation of insecticide resistance in anopheline vectors. Many tables and charts are included which permit the reading of results with a minimum of complicated calculations. The main chapters are: (2) Statistical Methods for Malaria Workers; (3) Vital and Health Statistics; (4) Malariometry; and (5) Adequacy of Sample Size. The appendices include helpful reference tables of logarithms, random sampling numbers, random allocation of treatments, table of chi-square, table of "t" and table of "F." The book is a mimeographed WHO publication.

It seems appropriate to make the following suggestions for improvement in the next edition: (1) include a subject index, (2) add a glossary of statistical terms, (3) give an annotated list of standard reference books on statistics and biometry, with comments on the specific usefulness of each, (4) include less information on vital statistics and more on indices such as are presented in Macdonald's recent book on *Epidemiology and Control of Malaria*, (5) simplify, and go into less detail on, some procedures such as probit analysis.

The book is one which every malariologist will want to have on his reference shelf.

A. D. HESS

A Handbook of Animal Physiology, by E. M. PANTELOURIS. 1st edition, 255 pages, ill. Lon-

don, Bailliere, Tindall and Cox (Williams & Wilkins Co., U. S. Distributors), 1957, \$6.25.

This is a basic general text on animal physiology giving an outline of the main facts and showing the wide scope of the subject. The book can be recommended as a first introduction. The material in it was selected mainly from topics used in examination papers in Britain for Biological, Agriculture and Veterinary degrees. Different views on unsolved problems are shown. A well selected reading list which contains many comprehensive articles, including experimental techniques, in easily accessible journals, is given. The book is well printed and illustrated by many diagrams and line drawings. A perusal showed only one error on Page 159 where "kilogram" should be used instead of "gramme" for the number of calories obtained from the complete combustion of fats or carbohydrates. The price for an introductory text of this size is somewhat high.

FREDERICK REISS

South African Snake Venoms and Antivenoms, by POUL AGERHOLM CHRISTENSEN, M.B., Dip. Bact., 1st edition, 129 pages, ill. Johannesburg, South Africa, The South African Institute for Medical Research, 1955:

This book is a useful source of information on certain of the zoological characteristics of the South African venomous snakes; and the nature, yield, stability, known pharmacological effects and toxicity of the venoms in experimental animals. There is an extensive, yet condensed, compilation of previously published and new data. The blood clotting mechanism, proteolytic action and enzyme content of the venoms described, and the physical and chemical properties of the poisons of certain South African species of *Naja* and the true vipers are given. Methods for sterilization, and detoxification of the venoms are described, and the literature is reviewed on various suggested medical uses of snake poisons.

The history of the development of an antivenin against South African venomous snakes is outlined, and the methods used for production, purification and concentration of the serum, animal assays of the neutralizing potency and determination of the cross-neutralizing action *in vitro* and *in vivo* are described in detail.

Information on the seasonal incidence and geographic distribution of snakebite in man and domestic animals in South Africa, and age distribution in man, body sites and other details are included. The mortality figures do not present a