
Fleas of Western North America

The study of western fleas has been attractive to the student of descriptive zoology because of the variety and newness of the fauna. Many of the species that have been found were new. Also the presence of plague has made the study of fleas in this area necessary. The classification of fleas is an intriguing subject and this may be illustrated by the fact that the 238 species and subspecies are distributed in 66 genera. Interest has lagged in recent years in the hollow curve of distribution but my guess is that a curve resulting from use of data on fleas would be rather startling.

This book is in three parts dealing with students of fleas, medical significance, field and laboratory technique, and morphology in relation to taxonomy (37 pages); systematic classification and a geographical index of the western fleas and of the eastern fleas compiled from Fox (347 pages); and host indexes (121 pages). This is a bibliography of recent papers, an index to species arranged alphabetically and also according to describer, and a comprehensive general index. An abundance of illustrations, and good materials and printing make this a very attractive book. Its value as an addition to entomological literature is obvious and it will be useful to health officials and sanitary officers, as well as to entomologists.—*C. E. Venard*.

Fleas of Western North America, by C. Andresen Hubbard. 532 pages, illustrated, 6x9, cloth bound. 1947. Iowa State College Press, Ames, Iowa. Price \$6.00.

Animal Breeding Plans

The third edition of this well-known book on the principles and practices of animal breeding continues the record of excellence established by the two previous editions. The organization and content are essentially unchanged even though new phrasing and new references occur in many places, adding more than one hundred pages of text. The chapter on Sire Indexes is completely recast.

This book, which has served students of animal breeding for a decade, actually may be used by a much wider public, including students of all phases of genetics. This is due to the fact that the author has clearly and simply described the basic concepts and methods of statistical genetics. A better exposition of the effects of selection and various schemes of inbreeding on the gene frequencies of a population does not exist elsewhere in the literature.—*E. L. Green*.

Animal Breeding Plans, by Jay L. Lush. Third ed. viii 443 pp. 50 figs. Ames, The Collegiate Press. 1945. \$3.50.