BOOK REVIEW

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Book Review

RABIES. PROCEEDINGS OF A CONFERENCE.

TOKYO, 1970. LASUITI NAGANO and FRED M. DAVENPORT (EDS.). UNIVERSITY PARK PRESS, BALTIMORE, LONDON, TOKYO. 1972. 406 PP., ILLUS. $18.50.

This volume is a collection of papers presented by a group of recognized authorities from the U.S.A., Japan, Philippines and Canada. The topics range from the history of rabies in Asia, nature and properties of the virus, pathogenesis, laboratory diagnosis, pre- and post-exposure prophylaxis, to epizootiology and field control in different countries. The various subjects are dealt with in depth and detail and most of them are followed by a discussion.

The individual interested in wildlife diseases will find the papers on epizootiology and control of the disease most interesting. The Japanese contributions inform us that, in Japan, rabies was predominantly a problem among dogs. Wildlife reservoirs apparently did not and do not exist. Stringent vaccination programs and other supportive control measures have eradicated the disease in Japan where thousands of dogs and hundreds of people became victims of this dreaded zoonosis during the first half of this century. A more complex epizootiological picture of rabies exists in the U.S.A. and other countries because of the involvement of wildlife—excellently described by Johnson. Constantine's competent presentation summarizes the present knowledge of rabies in bats.

By going through the volume it becomes apparent that no real advance has been made in the control of rabies in wildlife. Sikes' comprehensive paper demonstrates the effectiveness of vaccination of dogs. Though still theoretical, hopefully, further research will make vaccination of wildlife feasible, which would mean a decisive step ahead in the control of rabies.

It is reported that the Japanese employ the complement fixation test as a diagnostic tool, which also appears to be suitable for putrid specimens. Wiktor's and Johnson's papers on the nature of the virus and pathogenesis of rabies, lead to Koprowski's contribution on the prophylaxis of rabies in humans. The crude vaccines presently used for postexposure treatment are, at this day and age of science and technology, a black spot in the books of medicine. It is consoling to see that a group of investigators at the Wistar Institute is actively engaged in the development of a better vaccine.

The book can be recommended to any one interested in zoonoses.

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Book Review

ENVIRONMENTAL MERCURY CONTAMINATION

ROLF HARTUNG and BERTRAM D. DINMAN, EDITORS. 1972. ANN ARBOUR SCIENCE PUBLISHERS, INC., ANN ARBOUR, MICHIGAN. PP. 349.

This volume is based upon presentations to an International Conference on Environmental Mercury Contamination held at Ann Arbour, September 30 to October 2, 1970, and the contents reflect concern for the problem of mercury contamination in North America. This awareness shows an abrupt change of attitude from that expressed at another conference attended by many of the same participants, the proceedings of which had been published only one year previously. In those proceedings a participant stated with regard to a potential mercury problem in the

United States, " . . . but at least these data do not suggest that we have a great bombshell ready to burst here.", (p. 91 "Chemical Fallout. Current Research on Persistent Pesticides." M. W. Miller and G. C. Berg, editors, 1969. C. C. Thomas, Springfield, Ill.). The present volume represents early reaction to the explosion of this bombshell.

The book is divided into four sections dealing with the occurrence of mercury, analytical methods, environmental dynamics of mercury, and the biological effects of mercury compounds.

Part I includes a useful review of the sources of mercury in the environment and some information on estimated natural levels of mercury in the environment. The remainder of this section consists of short reports on mercury concentrations in bottom sediments, fish, birds and humans, primarily from states bordering the Great Lakes. This material largely represents the results of preliminary "crash surveys" done within the 6 months preceding the conference, and in many cases the numbers of specimens analyzed were very small. However, this section does illustrate the widespread nature of mercury contamination in this area; and the candid discussion with regard to industrial sources of this mercury provides information which is difficult to obtain elsewhere. Also included is a brief account of mercury distribution in the Minamata Bay area of Japan.

Part II deals with analytical techniques and includes a very extensive bibliography. The analytical procedures used by several laboratories were discussed, and the advantages of these systems were presented. The most obvious deficiencies of this section are the lack of an overall discussion of the relative merits of the techniques employed, and the failure to provide directives for acceptable techniques for dealing with the analysis of biological material.

Part III is notable for the way in which Dr. A. Jernelöv has condensed the considerable volume of literature, (primarily Scandinavian), on the mechanisms of, and factors affecting, biological methylation of mercury, into a concise, easily understood form. This section also contains a discussion of the distribution of mercury in soils, a subject on which relatively little information is available.

Part IV deals with the biological effects of mercury compounds, and will likely be the portion of most interest to those involved with disease problems which might result from environmental mercury contamination. Not all of the material presented is entirely relevant to the environmental problem; for example, material dealing with the effects of inorganic mercurials relates more closely to industrial hygiene than to the problem of mercury pollution of natural systems. Other portions, particularly those dealing with the biotransformation of organo-mercurials, and the pathology of organomercurial poisoning as seen in Japan are résumés of material published elsewhere.

Information on the effect of organomercurials on pheasants, mercury concentrations in human tissues, and the detection of subclinical effects of mercury compounds are valuable contributions to the overall knowledge of mercury in the environment.

The conference on which this volume was based less, than 1 year after the alarm had been sounded in the United States, was organized to assess the state of knowledge with regard to mercury contamination of the environment.

The book presents an overview of mercury contamination in the Great Lakes area of the United States, and a useful review of the situation in Japan and Sweden, countries in which mercury contamination had been recognized for some years.

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