have lacked finesse at points. For example, the book dates the first Soviet nuclear explosion as 23 September 1949. Actually, this was the date President Truman announced the explosion, which had occurred a few weeks earlier. But it is likely that only the specialist will be annoyed by such trivia. Some parts of the book have been extracted in the first two issues of *Sputnik*, the new Soviet English-language digest. But the book itself deserves an English edition. Or perhaps some bold soul will attempt a more definitive biography, contrasting and comparing this extraordinary scientist-administrator with his peers elsewhere.

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Viruses and Vectors

Insect Virology. KENNETH M. SMITH. Academic Press, New York, 1967. 270 pp., illus. $11.50.

A great many viruses are associated with insects. Some of the most important diseases of man are transmitted by mosquitoes and ticks, and many destructive plant viruses depend upon insect vectors for survival and dissemination. Many insects are themselves susceptible to specifically infectious viruses, and natural epizootics of such viruses often cause the decimation of host populations. Viruses have been utilized by entomologists in the management of a few pest species, and their potential usefulness as agents for biological control of a large number of important pest insects has stimulated research and interest during the last 20 years.

In this book Smith has reviewed a large proportion of our knowledge of the insect viruses. Most of the viruses, and even the suspected viruses, that are pathogenic for insects are discussed. A section on the relationships between plant viruses and insect vectors is included, but the important associations between mammalian viruses and insects are omitted except for brief mention in the introduction. The first chapters describe the various types of viruses and the diseases they cause. The literature is quite thoroughly reviewed and findings are presented in a lucid manner. It is this part of the book that will make it useful as a reference text.

In the last chapters Smith discusses some of the controversial subjects in the field. The section on the mode of replication is largely a summary of the work done 10 years ago by Smith and his group, and no mention is made of some of the most recent advances in this area. In the section on transmission and spread of insect viruses some very important and basic studies are not discussed. The chapter on inapparent or latent viral infections presents an interpretation that is open to serious question. Throughout the text there are general statements that are not supported by authoritative references, and the reader should be careful in his acceptance of these statements. But the book contains a good deal of useful information about the viruses of insects and when used with critical discretion will be of value to students as well as professionals.

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Radionuclides in the Environment

Radioecological Concentration Processes. Proceedings of an international symposium held in Stockholm, April 1966. BERTIL ÅBERG and FRANK P. HUNGATE, Eds. Pergamon, New York, 1967. 1054 pp., illus. $45.

The proceedings of any international symposium undoubtedly contain information of interest to investigators in the field concerned. The present proceedings contain a great deal of such information. Excellent reviews of several topics are among the hundred-odd papers included in the volume. Papers by such pioneers in the field as Comar and Lengemann and Scott Russell are not infrequent in the literature, but here these workers both provide current knowledge and ideas and indicate subjects needing further study. Other papers, by Hanson, Ekman, and Polikarpov, refer to specific problems in radioecology, in different ways suggesting further research and advocating caution in conducting it.

Unfortunately, summaries of only two sessions are included. One, by Miettinen, is in itself a comprehensive review of unique arctic food chains, supplementing that of Hanson. Hill's summary of the session on the behavior of natural radionuclides in the environment briefly reviews each paper of the session. His general comments could well be applied to the entire symposium, and should be noted by authors and editors. In reference to measurement techniques, their considerable variety and application near their limit of sensitivity, he says that "such a situation places a demand on authors that they should clearly demonstrate the reliability of their methods, and, thus, the validity of their results." Many of the symposium papers fail drastically in this regard, and several papers consist of tables or figures with no text. Others are poorly written, meeting none of the accepted standards for technical publications. In the cursory introduction, the editors point out that time did not permit much editing (none at all is apparent to the reviewer) and say that this should not be necessary since papers are from well-known institutions and scientists! The assumption is false, as most editors and referees of reputable scientific publications could testify. At least adequate proofing and a standard format are expected for a book of such price as this.

There are a sizable number of excellently written and interesting papers in the volume in addition to the introductory and session-summary papers mentioned above. An outstanding example is that of Whicker, Farris, and Dahl on radionuclides in a wild deer population and environment. Among these also are several papers on the behavior of radionuclides in soils by U.S.S.R. investigators (Kwaratskhelia *et al.*, Pavlotskaya *et al.*). Noteworthy, also, is Hawthorne's paper on transfer of ^{137}Cs to milk. In the session concerned with the marine environment, the paper of Phelps on partitioning of stable Fe, Zn, Sc, and Sm in a benthic community indicates a comprehensive study and results of significance. In his paper on the concentration and radiation effects of isotopes of strontium in fish, Townsley describes well-designed experiments and their results. Important also is his remark cautioning that the applicability of many reported findings to the establishment of "safe levels" for disposal of radionuclides in the marine environment is limited because of the complex nature of that environment. A number of other papers could easily provoke useful discussion.