
BOOK REVIEWS

"Invertebrate Zoology—Protozoa to Nematoda" by R. K. Sharan, published by Oxford and IBH publishing Co., 66, Janpath, New Delhi 110 001 Pages (vi)+349. Price Rs. 45.00.

Here is one book which not only should not have been written, but also should not have been printed and published. It brings disrepute to teaching of biology in this country and should be more than an embarrassment to the University where the author is Professor and Head of the Department of Zoology.

First, there was neither need nor occasion for yet another text book on a few invertebrate phyla. Several there are, written by competent teachers in Indian universities. In addition, a few published in the USA are available in cheap Indian editions, all good and reliable and reasonably priced. The claim of the author that his book is meant to conform to the syllabi of Indian Universities, that it is inexpensive and less bulky, is not correct. All that he has succeeded in doing is to produce a mangled and mutilated account, misleading to our both teachers and students.

Almost every page is replete with errors of information, of grammar, of spelling, of construction and of typography. In the very first page, I read that cysts (Protozoa) "are usually blown about by the wind and are known to cause a large number of diseases, e.g. malaria, sleeping sickness". A PUC student who says this would fail in his examination. This is only one of the several wrong statements misleading the undergraduate student. "Parasitism is also wide-spread in ciliata" he says on page 125. The macronucleus of ciliates "lacks a definitive nuclear membrane" (p. 68). These and many more statements in this book are totally wrong.

The author has no regard for language either; his spelling is haywire, he has thrown his articles to the winds, he has no respect for tenses or genders, his singulars are so mixed up with his plurals that one is not sure whether he is dealing with one or many.

For some mysterious reason, GAMETE is spelled GAMET; not once, but a hundred times throughout the book (20 times on one page, p. 118) PHLEBOTOMUS becomes variously PHOLOBOTAMUS (p. 44) and PHELOBOTAMUS (p. 46). FORAMINIFERA is FORMINIFERA (p. 18) and FORMANIFERA (p. 16). It is on the whole totally depressing. I am particularly surprised that the much respected publishers should have printed this book without proper scrutiny by a competent authority. One can

only hope that our students are spared reading of being misled by this badly written book.

B. R. SESHACHAR

Centre for Theoretical Studies,
Indian Institute of Science,
Bangalore-560 012.

Predatory Nematodes (Monochida): By M. S. Jairajpuri and W. U. Khan, Associated Publishing Company, New Delhi 110 005, India, 1982. Pages 131. Price: Rs. 100.00.

The Monochs represent a very fascinating group of nematodes sharing many unique characters, morphological as well as biological, with the primitive Enoplids and also the more sophisticated Dorylaims. In bringing together most of the available information on this interesting group of predatory nematodes, the authors have done a very commendable job. This compilation will, no doubt, serve as a monograph and be an useful addition to the meagre literature on the subject.

Although the chapters have not been properly indexed, the first part covers well, the comparative morphology of these nematodes and is profusely illustrated with neat diagrams to show structural details of different organ-systems and their characteristic features.

The second part deals with the systematics of this group, which unfortunately continues to be controversial, giving an outline of general classification and is followed by diagnoses of different taxa of the Order, with suitable keys to sub-order and familial ranks.

Lastly, familywise descriptive accounts of various genera and selected species, including some new ones, and keys only of Indian species, have been given ending with an exhaustive list of references and nematode index.

Descriptions, illustrations and keys to all the reported species (although references have been indicated), nature of their predatory habits, and a separate discussion on the phylogeny of these nematodes, particularly on their relationship with some members of Ironidae and Oncholaimidae, would have certainly completed the requirements of such a monograph. However, the book will be well received by serious

students and scholars interested in the taxonomy of this group of predatory nematodes.

S. N. DAS

Department of Nematology,
College of Agriculture,
Orissa University of Agriculture &
Technology,
Bhubaneswar 751 003.

Essentials of Nuclear Chemistry—by H. J. Arnikar.
Wiley Eastern Ltd., Delhi 110 002. Pages 334.

That there is a void as far as the availability of a good book on Nuclear and Radiation Chemistry suitable for Honours and Post-graduate students of Indian Universities is beyond any doubt. It is heartening to note that "Essentials of Nuclear Chemistry" successfully fills this void. The author's rich experience of having taught the subject is amply reflected in the material of the book. The sequence of topics is well chosen and the discussion on each topic is sufficiently deep and yet easily understandable.

The first two Chapters deal with the composition and stability of the nucleus and the properties of the nucleus and nucleons. Chapter three discusses the various nuclear models and their relative merits. Chapter four is devoted to the different types of radioactive decay and the theories associated with these decay processes. In Chapter five, the different types of nuclear reactions are discussed while Chapter six is devoted entirely for the discussion of nuclear fission and the theory of nuclear fission. Various types of nuclear reactors are discussed in Chapter seven. Chapter eight includes a fairly detailed discussion of the applications of radioactivity. An introduction to radiation chemistry is contained in the last Chapter (nine).

At the end of each Chapter, a number of sources for further reference is cited so that an interested reader may easily get at the relevant literature for further study if he so desires. This is followed by a number of problems related to the preceding textual material of each Chapter. Giving answers to the problems helps the interested reader to work them out and check the correctness of the working.

"Essentials of Nuclear Chemistry" is a well written book which richly deserves to be recommended to every Honours and Post-graduate student of any Indian University.

G. K. NARAYANA REDDY

Department of Chemistry,
Central College,
Bangalore 560 001.

Recent Trends in Wind Energy—Ed. Sharat K. Tewari (Indian National Scientific Documentation Centre, Hill Side Road, New Delhi 110 012). Pages 146, Price Rs. 30 \$10/-.

The book is a state-of-the-art report on wind energy and its exploitation. It covers, in its seven chapters, various topics including measurement and analysis of winds, concepts for wind energy conversion, calculation methods for some wind rotors, recent developments in wind energy conversion devices for water pumping and electricity generation in small and large scales and economic aspects. In the end is included an extract from a document on Energy for Rural Development (Renewable Resources and Alternative Technologies for Developing Countries) published by the National Academy of Sciences, Washington, D.C.

The book is primarily meant to bring to the attention of decision makers and public at large, some of the major trends concerning wind energy. It could also serve as a beginning for students and research workers to embark on a more detailed study. As such, the book presents a birds eye view of the wind energy scene. The references at the end of the book are chosen to provide more detailed information on the various topics covered in the book and could suggest to a more technically minded reader further literature for detailed study.

The book is well written and includes much wind data of relevance in the Indian context. It is illustrated with a large number of photographs and sketches of many different types of wind energy conversion systems. The book is thus well suited for its intended purpose and is a useful addition to Indian literature on wind energy systems.

S. P. GOVINDA RAJU

Department of Aeronautical Engineering,
Indian Institute of Science,
Bangalore 560 012.

Biodegradation of pesticides—Ed. F. Matsumura and C. R. Krishnamurti—1982. (Plenum Press, 233 Spring street, New York, NY-10013). Pages 294. Price not known.

This book has ten chapters written by scientists from India and the U.S.A. Part I discusses the principles and mechanisms of biodegradation and Part II microbial degradation of pesticides in tropical soils, pesticides and their use in forestry, public health, stored products. Application of biodegradable pesticides in India from the last chapter.

The book is based (except chapters 4 and 7) on the papers presented at the Indo-U.S. Workshop held in 1979 in Lucknow. These proceedings were published by the Department of Environment, Government of India in 1982.

In the first three chapters there is some repetition of the reaction mechanisms of degradation.

Chapter 4 deals with microbial degradation of pesticides in tropical soils. Most of the discussion relates to flooded soils only, although some work has been done on the degradation of pesticides in other tropical soils also. Comparisons between arable and flooded soils would have been more useful with emphasis on mechanisms of degradation.

Besides the work from CRRI, Cuttack, research from other tropical countries could have found place here.

Persistence and degradation of herbicides, classification of herbicides based on persistence and their safety aspects including contamination by toxic impurities like dioxins have been discussed in Chapter 5. However, the types of soils and their properties have not been mentioned in the discussion.

Use of grain protectants and fumigants is discussed in Chapter 9. Discussion on pesticide admixture with grain allowed in some countries as against surface container treatment and safety and persistence aspects of grain protectants would have added value to this chapter.

The last chapter is somewhat out of place in this book. The information given could have been updated after 1978. This chapter is not well edited. Some of the references cited are not listed and botanical names of some of the plants are incorrect.

A chapter covering safety aspects of degradation, time taken for breakdown and to reach safe levels with some pesticides and the basic relationship between functional groups/structure and properties of pesticides and their degradability, toxicity etc. could have been useful.

This book is a good reference material for all the research workers, teachers and students and regulatory officers dealing with pesticides and their usage.

V. AGNIHOTHRUDU

Rallis Agrochemical Research Station,
Plot Nos. 21 & 22, Phase II, Peenya Industrial Area,
Post Box No. 5813, Bangalore 560 058.

Annual Review of Nutrition: Vol 2, 1982 Editor: William Darby (Nutrition Foundation), Associate Editors: Harry P. Broquist (Vanderbilt University & Robert E. Olson (St. Louis University). (Annual Reviews Inc., Palo Alto, California, USA) 494 pp. Price: USA \$22.00, Elsewhere \$25.00.

The Annual Review of Nutrition Series, attempts to satisfy the felt need of bringing to the nutrition scientists, students and workers, up-to-date information on diverse subjects in the rapidly expanding field of nutrition. Critical reviews on the state of the art are contributed by experts. The 2nd volume begins with a prefatory essay entitled 'Personal Reflections on Clinical Investigations' by Dr. William B. Bean. It is an interesting account, sprinkled with touching personal reflections of the early experiments which led to the discovery of pellagra as a nutrition deficiency disease. That was the era when scientists did not hesitate to experiment on themselves in the cause of science. The essay would have been more complete by the inclusion of some of the contemporary work on pellagra, from countries like India, where the disease still persists.

Like the 1st Volume, the 2nd volume also covers a wide spectrum of subjects, in various areas of nutrition such as: Carbohydrates—Recent trends in carbohydrate consumption, T. A. Anderson; Xylitol and dentol carries, K. K. Makinen and A. Scheinen.

Proteins, peptides and amino acids—Amino acid imbalance and hepatic encephalopathy, P. Bernardini and J. E. Fischer.

Water—Regulation of water intake, B. Anderson, L. G. Leksell and M. Rundgren.

Nutritional toxicology and pharmacology—Caffeine, P. B. Dews.

Clinical nutrition—Pica and nutrition, D. E. Danford; Nutrition and immunity, M. A. Hansen, G. Fernandes and R. A. Good; Development of lipid metabolism, P. Hahn; Metabolic effects of total parenteral nutrition, P. D. Greig, J. P. Baker and K. N. Jeejeebhoy; Physiology of the control of food intake, J. R. Kissileff and T. B. Van Itallie; Liver diseases and protein needs, E. Mezey; The relations of alcohol and the cardiovascular system, A. Klatsky; Metabolic approaches to cancer cachexia, D. Lawson, A. Richmond, D. Nixon and D. Rudman; Iatrogenic nutritional deficiencies, R. C. Young and J. P. Blass.

Chemical senses—Chemical senses in the release of gastric and pancreatic secretions, J. G. Brand, R. H. Cagan and M. Naim.

Vitamins—Absorption and transport of cobalamin (Vitamin B₁₂), B. Seetharam and D. H. Alpers; Cellular folate binding proteins, C. Wagner.

Serial as well as category-wise indexing have been included. Though the predominant emphasis is on clinical and applied aspects, there is ample material of interest for scientists working on basic aspects of nutrition as well.

MAHTAB S. BAMJI

National Institute of Nutrition,
Hyderabad - 500 007.