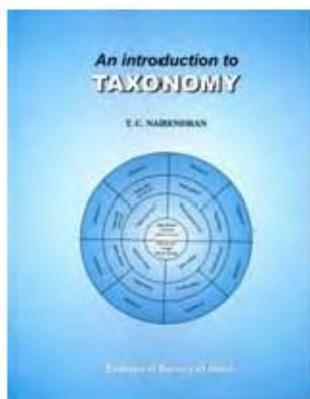


BOOK REVIEW



An Introduction to Taxonomy. T. C. Narendran. Zoological Survey of India, Kolkata. 2006. 80 pp. Price: Rs 100.

Taxonomy, the science of 'theory and practice of classifying organisms' is one of the earliest branches of biology. Considering the fact that fewer than two million species of organisms have been scientifically identified and named while an estimated 5 to 100 million await discovery, and that the current annual rate of extinction of species is 1,000 to 10,000 times faster than that happened in the geological past, taxonomy and taxonomists have a constructive role to play in the immediate future. The obligation of meeting the three fundamental objectives of the Convention on Biological Diversity such as conservation, sustainable utilization and equitable sharing of benefits that arise out of the use of biodiversity depends to a great extent on the precise identification of species. Further, the Biodiversity Management Committees to be established in all the local self governments in India as per the Biological Diversity Act, 2002 and the Biological Diversity Rules, 2004, with the primary objective of documenting all life forms through the preparation of People's Biodiversity Registers, require the services of trained taxonomists.

After a period of laxity taxonomy has now started playing a pivotal role in biology with heightened interest in biodiversity conservation and biotechnology. Just as biologists find mathematics a difficult terrain, taxonomy is a hurdle to many a biology students. The teaching of taxonomy by those who have had no experience on the subject together with absence

of enough textbooks aggravates the issue. The book under review fills a long existed need for a quality textbook on taxonomy in India. The simple presentation and lucid style with examples from the Indian context would benefit students, taxonomists and researchers alike.

In nine chapters the book explains taxonomy and its importance, impediments, problems to overcome, collections, identification, and classification approaches, nomenclature, publication and ethics. Besides presenting the subject matter the book also shares concerns in many areas and advances several suggestions to improve taxonomy learning, teaching and research in India.

The first chapter deals with the importance of taxonomy and its contemporary relevance, particularly to biodiversity and conservation. Throughout the book the importance given to entomology is justifiable as the strong leaning of the author towards the subject and the importance given to insects in animal taxonomy as the largest group of scientifically documented living beings on earth. Rearrangement of pest management under one heading and changing the title number 8 explaining the importance of taxonomy as 'Correcting the misidentification of efficient natural enemies' would have vastly improved this section. The shortcomings in taxonomic research and suggestions given in the second chapter call for serious discussions among academics, planners and policy makers.

Methods of collection and collecting given in chapter three are precise. As collection techniques vary considerably between various groups, methods of collecting various groups of organisms and appropriate reference books would enhance the utility of the chapter. Different types of keys used for identification explained in chapter four with suitable examples and illustrations will surely benefit beginners in taxonomy. Nomenclature is detailed in chapter seven. Absence of procedure and examples explaining preparation of dichotomous keys are serious limitations in this section.

Molecular systematics is a product of the traditional field of systematics and the growing field of bioinformatics. The sixth chapter describes molecular taxo-

nomy and the biochemical approach. Techniques involved in bar coding of species would have enhanced the latest trends in this subject. The chapter describing publication of taxonomic results is a useful guide for those who wish to publish the results.

The book ends with a chapter on the ethics in taxonomy research, including aspects related to lending as well as borrowing of specimens and publication of results. The need for a common code to be followed in scientific research is also emphasized. A glossary explaining taxonomic terminologies and references is given at the end. A list of popular websites dealing with taxonomy and websites offering taxonomic services on various groups of organisms would have been an added advantage for the students.

This book is useful for students, researchers and scientific community who wish to learn the fundamentals of taxonomy. A positive contribution of this book is that it explains the essence of the subject. Considering the complexity of the subject, the author has done remarkably well in showing the key concepts and tenets while allowing various concerns and solutions to be aired in such a slim book. The 'taxasphere' of the world is currently represented by limited number of committed scientists and hence there is urgent need to replenish the system with young taxonomists. The author, a veteran taxonomist, teacher, researcher and guide has produced a book that will inspire many biology students to take up research and perhaps even a career in taxonomy. Given the quality of text and its modest pricing, it really is a must for libraries. As suggested in the book, 'It is high time that we set our priorities straight and attempt for a global initiative for development of taxonomic research. Unless we do this now, we may not even know how many species have become extinct even before they have been discovered'.

A. BIJU KUMAR

*Kerala State Biodiversity Board,
Kerala Forest Research Institute,
Peechi 680 653, India
e-mail: abiju@rediffmail.com*