
Preface

The trend in biological studies these days is towards biological diversity and conservation. Generally, many focus on vertebrates and flowering plants, although arthropods constitute more than 80 % of the total biota on planet Earth. Arthropods provide a multitude of ecosystem services and these are crucial for human sustenance and welfare. The concern of entomologists and other arthropod workers is to ensure sustenance of undisturbed populations, free from human interferences, by providing and maintaining safer and quality habitats for arthropods. In view of the importance and lack of published information on arthropod diversity and conservation, the current book, *Arthropod Diversity and Conservation in the Tropics and Subtropics*, was planned.

This book highlights concerns of not only entomologists but also other biologists studying arthropods to emphasize the importance of biological conservation of different communities of arthropods across the globe. Life forms dealt in this book cover arthropods as a community because despite such an important and vital group of animals, documented information on them with the exception of insects is scanty. These include scorpions, shrimps, prawns, crabs, ticks, mites, spiders, centipedes and millipedes that are unique in forms and distribution playing diversified roles in multiple biotopes. The crux of the problem for the conservation of arthropods is that the common public do not distinguish them as separate entities, recognize them as an independent group and appreciate their roles. So a comprehensive understanding on the roles of all the arthropod entities should be developed than insects alone.

Arthropods play an important role in maintaining the health of ecosystems, provide livelihoods and nutrition to human communities and are indicators of environmental change. Yet the population trend of several arthropod species is showing a decline. Arthropods evolved about 350 million years ago and constitute a dominant group with 1.2 million species influencing earth's biodiversity of animals, with insects predominant having about one million species. They are intimately associated with living and nonliving entities, and hence, ecosystem services offered by them are crucial. Arthropod conservation requires integrating conservation science and policy, with long-term planning and action plans. An attempt has been made here to indicate the mechanisms by which arthropod populations can be sustained in ecosystems and certain problematic species be managed without creating environmental side effects and economic burden. The plan for the conservation of arthropods and ecosystems should include a mixture of strategies like protecting key

habitats and genomic studies to formulate relevant policies for *in situ* and *ex situ* conservation.

This book is a step forward in monitoring and encouraging people for their continued support in saving planet's earth-limited biological resources and their potential habitats and increasing awareness in generating appropriate technologies for their management. Implementing nature-friendly technologies to mitigate adverse impacts on arthropod populations is the major concern aimed to be reinforced in the minds of the public and its reinforcement amongst researchers in biological sciences. We hope that this book will serve as an additional step in this direction.

Bengaluru, India
2015

Akshay Kumar Chakravarthy
Shakunthala Sridhara

Arthropod Diversity and Conservation in the Tropics and
Sub-tropics

Chakravarthy, A.K.; Sridhara, S. (Eds.)

2016, XXIV, 435 p. 149 illus., 101 illus. in color.,

Hardcover

ISBN: 978-981-10-1517-5