

# Preface

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Current patterns of resource exploitation by human kinds do not bode well for the future of bio-diversity. Ecologists Normen Meyers recently estimated that some 600,000 species have vanished since 1950 and today, two of every three species are estimated to be in decline. No one knows the scope of bio-diversity and also that how many species of plants and animals share the planet with human beings. Whatever be the actual number of species, but the preservation of bio-diversity itself is vital to humanity.

India a mega-diversity nation with numerous hot-spots of bio-diversity represents a blend of variety of terrain, forests, physiography. Flora and faunal elements has lured the intelligentia since time immemorial. Ecology and reproduction have become the focus of attention of the scholars, students and scientist and efforts are underway for a better understanding of this higher complex interactions among various organisms and the environment.

Animal ecology and reproductive strategies forms an important part of curriculum of almost of all universities in India and the study of animal ecology is useful to understand the co-relation between the breeding techniques employed by various animals during diverse environmental conditions. The objective of this series has been to collect, compile and disseminate information on the subject

of animal ecology and reproduction so as to make the reader updated with the latest in the fields where propagation of scientific knowledge has been enormous in the past two decades.

Every effort has been made to make the book of prime utility for vigorous students taking higher courses in animal sciences and the environmental sciences. The chapters incorporated herein represents only an extremely modest selection of several facts of the breeding ecology of the animals and shall hopefully fill the gaps in the present knowledge of the subject existing today.

This volume like other volumes of the series will be a valuable, and an important research manual, that will stimulate interest and satisfy the need for further knowledge of this existing and rapidly expanding discipline. The articles in this volume cover a wide array of current research topics dealing with both fundamental and applied researches in the fields of animal ecology and reproduction. The articles are highly authoritative and thought provoking and contributed by the scientists in their respective fields. The articles on study of *Vibrio* through ERIC-PCR and REP-PCR for development of fish and human health management; Phagocytosis of charcoal particulate as immunological marker of Azadirachtin exposure; Phenotypic plasticity of *Drosophila melanogaster* at different temperatures; Amelioration of anti-oxidant vitamins on ciprofloxacin induced toxic changes in blood; Adverse effect of ampicillin on brain lipids in albino rats; Estrogen induced standard cytotoxic model in the uterus of rat; Efficacy of ovaprim and ovatide in induced breeding of *Clarias batrachus*; and the photoperiod and biological rhythms in regulation of avian reproduction etc. are important contributions.

We hope that this volume of the book series *Perspectives in animal ecology and reproduction* like our previous volumes will be highly useful to students, scientists and research workers in the animal ecology and reproductive aspects. We are highly grateful to all the eminent scientists for taking troubles in writing chapters and for constant support and encouragement to bring our this book series. We are specially grateful to M/s Daya Publishing House, New Delhi for printing volume in stipulated time.

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