

Preface

Ecology and reproduction have become the focus of attention of the scientists and scholars now-a-days and all the efforts are underway for a better understanding of the complex interaction among various living organisms and the abiotic environment. The first volume of the series "*Perspectives in Animal Ecology and Reproduction*" was published in 2002 when there was tremendous pressure upon the animals and other resources of the earth and the situation has not changed much in the last decade. In India the population has since crossed the one billion mark and the ever increasing population of the world has continued to create pollution and destruction of the resources.

Present volume of the series (Volume 9) comprises the vast body of research on the subject and has been designed in such a way as to serve the purpose of the students and the scientists. The book includes twenty six original research articles written by eminent researchers from within India and abroad. The book thoroughly covers all basic information on the subject of animal ecology and reproduction to make reader updated with the latest developments in this field where propagation of scientific information has been enormous.

The papers incorporated herein represents extremely modest selection of several facts of the breeding ecology and diversity of the animals. The lead articles focus upon the taxa ranging from minor phyla to mammals representing research work, review or overviews. The volume includes topics *viz.* Synthesis of silver nanoparticles using Gerifort drug extract and evaluation of their antimicrobial activities; Behavioural studies on the Hemipteran-*Diplonychus rusticus*; Noval bio-pesticides for mosquito vectors; Use of bio-insecticides for control of Dengue vector; Larvicidal effect of Spinosad and Azadirachtin against *Aedes aegypti*; Nutritional status of molluscs in Nepal; Utilization of feeds on the survivality of Tiger prawn and for sustainable aquaculture productivity.

Other notable inclusions in this volume are: Effect of dye effluents on haematological parameters of Indian major carp *Labeo rohita*; Effect of Doramectin administration on biochemical parameters of live fish *Channa punctatus*; Anti-hepatotoxic effects of vitamins on damaged liver of rats; Role of vitamin A, C and E on the histopathological changes induced in the pancreas of rats; Effects of Triphla and Trikatu on obesity in albino rats; Protective role of Vitamin E on Aroclor 1260 induced oxidative damage in steroidogenic enzymes in TM₃ Leydig cell line and the Anti-oxidant activity of Genistein on Aroclor 1260 induced toxicity in TM₃ Leydig cell line.

The authors have tried to analyze the bio-ecological spectra vis-à-vis breeding strategies adapted by diverse animals *in vivo* and *in vitro* as well. It is hoped that this volume shall generate further database for the researchers and academicians working on this field who shall find this book very useful and indispensable in their relevant research pursuits.

Dr. V.K. Gupta