

Preface

The earth contains countless places to live, and therefore a great diversity of life is observed all over. There are more than two million different kinds of living things on this earth. When we look around, we notice that the world abound with diverse living things which exhibit a marvelous spectrum of colours, shapes and forms. Life occurs almost everywhere on earth, from the highest mountain peaks to the deepest ocean trenches and the organisms display a great diversity in their rich ecology and reproductive strategies.

All living things reproduce members of their own kind. Since living things eventually die, reproduction ensures survival of the group. Reproduction is simple in some of the smaller forms of life, but the great majority of animals and plants possess sexually reproducing capability. The living things also respond to stimuli in their environment and their ability to adjust to their environment is one of their most striking characteristics.

In current century, enormous information has to be gathered from the field of biology. Biologists, in modern days are in much demand and will continue to be so in future. The science of biology

affect our daily lives and our future too and a battery of researchers are engaged in researches on animal ecology and their breeding patterns.

It was in light of this the current book series was planned. The text in the book has been organized into two units containing 24 chapters. The unit one of the present volume contains 16 chapters which deals with the animal ecological studies. Unit two contains 8 chapters on reproductive strategies adopted by the animals. The highlights of the present volume are the topics *viz.* Sodium fluoride induced toxicity in the eggs and larvae of *Drosophila melanogaster*; Body metric variation in populations of the giant African snail, *Achatina fulica* from two different environ; Ionic variability of aquatic environment and osmoregulatory adaptations in teleost fishes: an ecological perspective; Behavioural alterations of freshwater air breathing teleost, *Channa punctatus* in response to heavy metal exposure; A critical review on certain aspects of anuran integument; Time budget activity pattern of behavioural displays of captive axis deer (*Axis axis*); Study of age related changes in the activity of some metabolic enzymes in *Cyprinus carpio* as biomarkers; Biopesticides- its prospects and limitations: an overview; *Trypterygium wilfordii*: a new hope for male contraception; Mating behaviour of commercially important portunid crab *Portunus pelagicus*; Biochemical changes in ovary and uterus of mice after exposure to indoxacarb; reproductive potential of fresh water fish in fluoride contaminated water; and a review on the sexual selection and mating systems across the animal world.

With the enormous volume of researches in the fields of animal ecology and reproduction each year, it becomes rather difficult to sort out the meaningful and to present it in a comprehensive manner. It needs constant examination of the data in the light of recent knowledge. It is a matter of great pleasure and satisfaction that the book "*Perspective in Animal Ecology and Reproduction*" has been warmly accepted by the learned scholars, scientists and teachers of the colleges, universities and research institutes of the country and abroad. We are, therefore, pleased to place before our readers the next volume *i.e.*, Volume 8 of the series which shall prove more useful to them.

We are grateful to the readers and contributors for their unflinching support and confidence and we shall be thankful to

receive constructive suggestions for further improvement of the book series. We would also like to put on record our sincere appreciation for the publisher for co-operation in bringing out the present volume within the stipulated period inspite of our demand for high quality.

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