

FUNDAMENTALS OF ENTOMOLOGY

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Preface

Entomology, the scientific study of insects, is a fundamental discipline in agricultural, veterinary, forestry, and environmental sciences. Insects constitute the largest and most diverse group of animals on Earth, playing indispensable roles as pollinators, decomposers, biological control agents, and ecosystem engineers, while many species also pose significant challenges as pests and vectors of diseases. The book, *Fundamentals of Entomology*, has been developed to provide a comprehensive introduction to insect biology, diversity, ecology, and their economic importance.

Advances in insect physiology, molecular biology, genomics, integrated pest management, and conservation biology have greatly expanded our understanding of insect life and their interactions with plants, animals, and the environment. These developments are essential for designing sustainable pest management strategies, conserving beneficial insects, and safeguarding agricultural productivity and biodiversity.

This volume brings together contributions from experienced academicians, researchers, and entomologists to present current knowledge on insect morphology, taxonomy, anatomy, physiology, behaviour, ecology, classification, insect-plant interactions, and principles of integrated pest management. Emphasis is placed on linking fundamental concepts with practical applications relevant to agriculture and environmental sustainability.

The editors hope that this book will serve as a valuable resource for students, teachers, researchers, extension professionals, and practitioners. We sincerely acknowledge the contributions of all authors and reviewers whose expertise and dedication have made this publication possible.

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Mr. Ajay Sharma
Dr. Mudasir Gani
Dr. Kamlesh Bali
Mr. Pawar Shubham Tarasing

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