

DYNAMICS OF INSECT BEHAVIOUR



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PREFACE

Insect behaviour is a multifaceted discipline encompassing such diverse areas as ecology, conservation, insect-plant interactions, pest management, vector control, ecosystem engineering, chemical ecology and genetics. Insects, as in the case of other animals are known to endure behavioural diversities, overcoming difficulties in escaping from predators, gathering food, fighting rivals, selecting mates and nurturing the young. The diverse ways in which insects accomplish these functions successfully are of considerable interest and this volume presents a nearly vivid picture of the behavioural diversities of several groups of insects – aerial, terrestrial and aquatic. The phenomenal migration of the monarch butterflies, ants hunting in swarms of thousands, shrill sounds of the cicadas, songs of the grasshoppers, flashing of glow worms and fireflies communicating in darkness go to show that behaviour is an exciting part of the natural history of insects. Adaptive regulation has promoted the continued existence of insects in a wide variety of environments.

Many insects such as locusts show migratory movements of a prolonged nature that carry these insects outside familiar habitats. Persistence, linearity, undistractability and stored energy distinguish migration from other movements. The ceaseless underground foraging of ants aerating the soil, efficacy of pollination of bees, wasps and flies playing an essential role as scavengers are well known. The diversity of behaviour of some aquatic beetles and bugs, the skating behaviour of some water bugs, gall inducing behaviour of some insects and vector behaviour of some mosquitoes are proverbial. In trying to explore the behavioural diversities of some of these insects the authors have kept in mind the essential roles that insect play in nature.

The editors wish to thank the contributors who have taken pains to assess and document the behavioural diversities of several groups of insects, knowledge of which will go a long way towards contributing to our knowledge of the behavioural diversities of insects. The editor thanks the co-editor, Prof. K.G. Sivaramakrishnan for his painstaking efforts in contacting the authors to submit chapters on time. The editors are equally thankful to the publishers for their patience and interest in this publication.

T.N. ANANTHAKRISHNAN

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