

FOREWORD

The emergence of new thinking in terms of a mix of ecology, systematics, and evolutionary biology, not to mention of genetics and molecular biology, has resulted in a better appreciation of the adaptive diversity of species. Ernst Mayr's observation that the species plays different roles, and the thinking of various kinds of biologists that we must be aware of the differences, interests and approaches to systematics, interest in population dynamics, limits of intraspecific diversity with aspects like biotype recognition and polymorphism, have given a totally different perception of biosystematics. Needless to emphasize that we need to know more on the distribution, biology, abundance and population dynamics of species, since species diversity and diversity of habitats are important contributing factors towards the maintenance of ecological services we rely upon. Further, the utilization of modern techniques has facilitated on in-depth understanding of the dynamics of the species. In particular, the frequent occurrence of intraspecific diversity has led to ecobehavioural, physiological, cytological and behavioural approaches for a better assessment of the concerned species.

Interest and increasing awareness of the nature of species as evident from population studies have shown the occurrence of phenotypic plasticity enabling them to thrive better in changing environments. To be more specific, phenotypic plasticity is the expression of multiple phenotypes by one genotype enabling individuals the flexibility to alter their morphology, physiology and behaviour. One cannot overlook the definition of polymorphism by Richards who defines it as "one or more sexes of a species occurring in two or more forms which are sufficiently sharply distinct to be recognizable without morphometric analysis". It is a fundamental character of insects subject to evolutionary pressures, and is of practical concern to taxonomists, agricultural and medical entomologists. Needless to emphasize that specialization in one environment becomes opportunities for new interactions in other environments, so that specialists evolve from generalists.

In initiating a journal on biosystematics, Prof. T. C. Narendran Trust for Animal Taxonomy has taken a great leap forward in promoting a better understanding of the intricacies involved in the subject.

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