

Preface

Biodiversity refers to the diversity of plant and other life forms in a biosphere. Biodiversity is often defined by biologists as the "totality of genes, species, and ecosystems of a region". Therefore traditionally, it can be identified at three levels - species diversity, ecosystem diversity and genetic diversity.

Extinction of species or other abiotic factors caused by geologically rapid changes in climate have been known to affect the rise or fall in biodiversity. However, with the evolution of man and the advancement in conditions of human life there has been a definite decrease in biodiversity and an accompanying loss of genetic diversity and the current rate and magnitude of extinctions are much higher than what was estimated. This decrease in biodiversity is primarily a result of human impacts, particularly destruction of environment.

While Darwinian theory of natural selection promotes the idea of "survival of the fittest" within a given species, however, each species depends on other species to ensure survival. Biodiversity hence plays an important role in increasing productivity of ecosystems where each species plays an equally important role in mutual survival and help create what is often called a balanced ecosystem. It is because of this reason that preservation of biodiversity is the need of the hour.

This book provides an overview of the evolution of biodiversity and how it has been affected by various factors at different stages of Earth's life. We hope that this book facilitates development in the field of science. I would like to thank our researchers and writers for their efforts and contributions. This book would not have been possible without your constant support and insights.

Editor