

PREFACE

A part of the universe that was formed 4.6 billion years ago is still a very interesting topic to explore despite its age. Yes, it's the earth that we are talking about. Scientific literature has never failed anybody's curiosity, and it never will for the years to come. This book intended for scholars at the undergraduate level focuses on a unique approach to the study of all the organisms living in different habitats spread across the earth's land and the waters. The geography of the earth is considered as a set of bioregions that abound in particular taxa, landscape features and climatic factors.

The diversity in every region has interesting insights on the evolution and the history of earth. The vastness of this topic is a measure that is unfathomable when considered from the research point of view. There is no limit to the studies that can be conducted and are dedicated to an elaborated study of the existence of ecosystems and their respective interactions. Various mathematical tools were also used to arrive at concrete conclusion of several aspects when studying a particular range of species.

This book is an attempt to identify general patterns of biogeography and biodiversity on the basis of well-developed natural environments and their transformation over time due to the climatic and topographical changes. This is also signified by a subject already published in an earlier book of this environmental sciences series as it is the movement of tectonic plates over the years ultimately leading to the creation of more accommodating niches suiting to the flourishing of biodiversity. This book also dives into the process of the encroachment into nature by humans and its subsequent concerns with reference to the effects on the existence of the species and their conservation.

With the objective of keeping a sequential approach to this study that is easy to follow, the subject matter of this book begins with the biogeography that focuses on the earth's major regions. The next section will seek biodiversity at different scales and levels as to how the species abundance of certain areas made provisions for the productivity of that ecosystem. The interdependence of the resources from an ecosystem with the economy is taken next and explored

with reference to the current context of nature degradation beyond admissible levels and its effects on climate change, which is also a subject of another earlier book in this environmental science series.

The depreciation of biodiversity and its necessary restoration is a hot topic that has taken multiple levels in terms of research and the development of processes contributing to the revamping of the affected habitats. The fate of biodiversity is already showing clear demonstrations of how it has been affected with the development of the countries over time. A bird's eye view of the flora and fauna of these regions, existing theories explaining species diversity, are all covered next followed by a thorough detail of the ongoing conservation practices. Up next are the recent developments in the research of biogeography with the assistance of improved methodologies and modern technologies. The last section has been specially designed to provide leads for further research has found relevant to the topics in consideration.