

PREFACE

The study title 'Lagoon: Habitat and Species, Human Impacts and Ecological Effects' was an attempt to provide insights attributed to both natural and anthropogenic influences to the lagoon ecosystems. Human influence related to lagoons is diverse but commonly drawing benefits in areas of transportation, fish aquaculture, sand mining, recreation, waste management etc. Indeed prior to understanding the structure and approach in this book it is imperative to take cognizance of the diverse and very articulate authorship of the chapters herein. This book in its respective chapters draws representation from South America, Africa (including the Mediterranean region) and Europe. Moreover, the chapters individually address and share particular areas of interest that include physical, chemical and biological processes involved in lagoon systems.

To select a few areas for example, in an effort to comprehend the fundamentals of habitat and species of lagoon systems, the eminent conspicuous issue is lack of information related to the composition of micro-biota of the Mediterranean coastal lagoons. Fortunately a few authors have dedicated their chapters to relate and compound on this aspect. In addition, issues related to anthropogenic activities and its ecological impacts have received due attention and foretell the biogeochemistry of applying lagoons in managing waste emanating from such activities. Thusly, the book through its chapters encompasses a scholarly approach (by research, exposure and experience) directed towards comprehending on these critical aspects raised of lagoon ecosystem, in particular depicting;

- a. Relationship between benthic vegetation and sediment biogeochemistry
- b. Development of micro-algal bloom
- c. Aerobic and anaerobic influences
- d. Primary producers and benthic fauna relationships etc.

The importance of lagoons, whether open, restricted or in any other form are closely discussed by the authors in this book. Essentially the basis was also to include structural, locational and complex aspects that provided an insight in the biodiversity and characterization of the dynamism of such systems. For example, on a narrow view to illustrate the structural approach in this book, benthic fauna and flora rich in plants like charophytes (including other important aquatic invertebrates and related fauna) are given due attention in some of the chapters explaining the explicit and implicit factors that impact on their threats and decline.

To improve on scope and enrich the discussion, aspects such as eutrophication and pollution is also included in the book. In reaching for the goals stated here-above the span of coverage also enveloped areas touching on shallow waters separated by large bodies of water associated with coastal features to anthropogenic waste water treatments lagoons. The latter's interest lies on the low cost associated to such lagoons and biogeochemistry influencing anaerobic, natural aerobic or aerated systems. Therefore with a more inclusive, depth and varied approach in the study of lagoons, there is no iota of doubt that the book provides a highly enlightening scope of work related to the lagoon ecosystem its habitat, species and ecological impacts relating human influences on all the dimensions therein.

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