

---

## Preface

*The Red Sea* is unique in all respects, including its tectonic history, environment and biology. It is a young ocean basin that along its length has undergone or is undergoing the transition from a continental rift to true oceanic seafloor spreading, the nature of which is still open to vigorous debate. In addition, due to its semi-enclosed nature and location within an arid region, the environment is affected by high evaporation rates that together with limited contact with the Indian Ocean results in high temperatures and salinities. Lower sea levels in the past have also led to extensive evaporite deposition within its basin, while brines and metallic deposits in the axial deeps have been the subject of considerable research; the metalliferous muds may be exploited at some stage in the future. The conditions in the Red Sea have in turn governed the flora and fauna in the sea and along the coast, notable among which are the extensive coral reefs that fringe the sea. The adjacent areas are undergoing rapid development that together with the associated changes are placing some stress on the environment in many areas.

Various topics, from the geology to the past and present environment and the effects of human activities are examined in this volume, which aims to present the current thinking and summaries of research in each field of study. Each chapter aims to give a reasonably comprehensive overview of its subject matter, including useful reference lists for further study. The chapters in the volume were presented at a workshop held in Jeddah, Saudi Arabia, from February 3 to February 5, 2013, under the auspices of the Saudi Geological Survey (SGS). We wish to thank Dr. Said J. Alqahtani of Jubran Holding for assistance in funding the workshop. The support of the Survey in the preparation of this volume is greatly appreciated, and we would like to thank all those who have been involved in its production. We would especially like to thank Dr. Zohair A. Nawab, President, Dr. Abdullah M. Alattas, Assistant President, Mr. Abdullah F. Al-Khattabi, Chief Geologist and Mr. Nasir S. Aljahdli, Director, Survey Department of the Saudi Geological Survey for their encouragement in planning this volume. Colleagues at the SGS Center for Marine Geology, and Mr. Louiesito Abalos are also thanked for making the workshop a success. The contributions of the many technical referees to improving the contents of the chapters as well as the assistance of Ms. Radhika Sree of Springer and Dr. Geoff Bailey in preparing this volume for publication are also greatly appreciated.

Najeeb M.A. Rasul  
Ian C.F. Stewart

The Red Sea

The Formation, Morphology, Oceanography and  
Environment of a Young Ocean Basin

Rasul, N.; Stewart, I.C.F. (Eds.)

2015, IX, 638 p. 451 illus., 406 illus. in color., Hardcover

ISBN: 978-3-662-45200-4