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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Introduction to the Red Sea: Its origin, structure and environment -- The Red Sea: Birth of an ocean -- Geological evolution of the Red Sea: Historical background, review and synthesis -- Seafloor spreading initiation: geophysical and geochemical constraints from the Thetis and Nereus Deeps, central Red Sea -- The Northern Red Sea in transition from rifting to drifting – lessons learned from ocean deeps -- Lineaments in gravity data of the Red Sea -- Geodetic constraints on the geodynamic evolution of the Red Sea -- Seismicity and seismotectonic setting of the Red Sea and adjacent areas -- Seismicity of the western side of the southern Red Sea -- Volcanic eruptions in the southern Red Sea during 2007-2013 -- Red Sea salt formations – a result of hydrothermal processes -- Salt flows in the central Red Sea -- Geochemical classification of brine-filled Red Sea deeps -- Hydrothermal activity and paleoenvironments of the Atlantis II Deep -- Environmental risks of mining metalliferous muds in the Atlantis II Deep, Red Sea -- Calcite and aragonite saturation states of the Red Sea and biogeochemical impacts of excess carbon dioxide -- Lagoon sediments of the eastern Red Sea: Distribution processes, pathways and

patterns Sea level changes -- Air-Sea interaction and horizontal circulation in the Red Sea -- Water-mass formation, overturning circulation and the exchange of the Red Sea with the adjacent basins -- Heat balance of the Red Sea -- Impacts of climate change on the Red Sea region and its watersheds, Saudi Arabia -- Raised coral reefs and sediments in the coastal area of the Red Sea -- Geomorphology of shallow water coral reef environments in the Red Sea -- Coral reefs and communities of the central and southern Red Sea (Sudan, Eritrea, Djibouti and Yemen) -- Coral reefs of the Red Sea with special reference to the Sudanese coastal area -- The status, threats and resilience of reef building corals of the Saudi Arabian Red Sea -- Biology of Red Sea corals: Metabolism, reproduction, acclimatization, and adaptation -- Taxonomic, ecological and historical considerations on the deep-water benthic mollusc fauna of the Red Sea -- Sea Slugs: unexpected biodiversity and distribution -- Marine turtles of the Red Sea -- Phytoplankton of the Red Sea -- Mangroves of the Red Sea -- The evolution of the Red Sea as a human habitat during the Quaternary Period.

Sommario/riassunto

This book presents a broad overview of the current state of knowledge regarding the Red Sea, from its geological formation and oceanographic development to the environmental influences on its ecology and the changes it is experiencing due to the rapid development of its coastlines and role as one of the world's major transport routes. The book gathers invited contributions from researchers with an interest in the geology, geophysics, oceanography and environment of the Red Sea, while also providing comprehensive new data and a complete review of the literature. It will be of interest not only to researchers actively studying the sea and its surroundings, but will also appeal to all those involved in planning and managing the Red Sea, its environment, its resources and the countries which rely on its existence.
