

1. Record Nr.	UNINA9910746080903321
Titolo	Dynamics of planktonic primary productivity in the Indian Ocean // edited by Sarat Chandra Tripathy, Arvind Singh
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023
ISBN	3-031-34467-7
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (369 pages)
Disciplina	577.6 579.81776
Soggetti	Phytoplankton - Indian Ocean
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1-An overview of phytoplankton productivity dynamics in the Indian Ocean -- 2-Marine optics and primary productivity -- 3-How much carbon does northern Indian Ocean biota export to the deeper ocean?- 4-Characterizing the phytoplankton dynamics and primary productivity in the estuarine and open oceanic waters of the Indian Ocean -- 5- Primary productivity dynamics in the northern Indian Ocean: an ecosystem modeling perspective -- 6-Spatial distribution of coloured dissolved organic matter and its relation to phytoplankton community structure in the Off-Kochi waters – a seasonal comparison in 2019 -- 7-Biophysical control on the variability in the upper layer production pattern of the Arabian Sea -- 8-Harmful algal blooms: an ecological perspective and its implications to productivity patterns in tropical oceans -- 9-Observation of phytoplankton bloom and associated features around the southern peninsular India using satellite data -- 10-A review on the phytoplankton primary production in relation to environmental forcing in Indian estuaries -- 11-Observation of satellite derived monthly scale variability of surface water chlorophyll over the basins Bay of Bengal and Arabian Sea -- 12-Ocean Primary Productivity and its implications to fishery and biodiversity -- 13-Inter-basin comparisons of primary productivity and its controlling factors between Arabian Sea and Bay of Bengal -- 14-Phytoplankton productivity in the Indian sector of the Southern Ocean: present and future perspectives --

15-Remote sensing-based estimation of primary production in Arabian Sea -- 16-Patterns of phytoplankton biomass and primary production in Indian Seas -- 17-Mixoplankton paradigm and its role in food-web dynamics and carbon sequestration potential of the oceanic environment -- 18-Conclusion. .

Sommario/riassunto

This volume compiles recent research on phytoplankton primary productivity (PP) in the Indian Ocean to provide an understanding and consolidation of the driving mechanisms of PP variability in diverse oceanic ecosystems globally. The book aims to facilitate a holistic overview of the research carried out in this field in various oceanic realms such as Indian coastal and oceanic waters (estuaries, coastal waters, Bay of Bengal, Arabian Sea, Indian Ocean). The contents of this book also address the United Nations sustainable development goals i. e., SDG 13 (Climate Action) and SDG 14 (Life below Water), with a focus on the impacts of climate change oceanic ecosystems. The book can serve as a comprehensive baseline of information for researchers studying planktonic primary productivity and biogeochemistry-related research in the above-mentioned marine ecosystems and other global oceans. It is intended to attract the attention of researchers, professionals, undergraduate and graduate oceanography students, and policy makers in the field of marine sciences.
