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Descrizione fisica	1 online resource (XVIII, 447 pages) : illustrations (some in colour); digital, PDF file(s)
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Soggetti	Aquatic ecology Freshwater & Marine Ecology
Lingua di pubblicazione	Inglese
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Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Foreword -- Preface -- Part 1 A brief history of marine litter research -- Part 2 Abiotic aspects of marine litter pollution -- Global distribution, composition and abundance of marine litter -- Persistence of plastic litter in the oceans -- Part 3 Biological implications of marine litter -- Deleterious effects of litter on marine life -- The complex mixture, fate and toxicity of chemicals associated with plastic debris in the marine environment -- Marine litter as habitat and dispersal vector -- Part 4 Micro plastics -- Micro plastics in the marine environment: sources, consequences and solutions -- Methodology used for the detection and identification of micro plastics – a critical appraisal -- Sources and pathways of micro plastics to habitats -- Micro plastics in the marine environment: distribution, interactions and effects -- Modeling the role of micro plastics in bioaccumulation of organic chemicals to marine aquatic organisms. A critical review -- Nano plastics in the aquatic environment. Critical review -- Part 5 Socio-economic implications of marine anthropogenic litter -- Micro and nano-plastics and human health -- The economics of marine litter -- Regulation and management of marine litter -- Marine litter and the

contribution of citizen science.

Sommario/riassunto

This book describes how man-made litter, primarily plastic, has spread into the remotest parts of the oceans and covers all aspects of this pollution problem from the impacts on wildlife and human health to socio-economic and political issues. Marine litter is a prime threat to marine wildlife, habitats and food webs worldwide. The book illustrates how advanced technologies from deep-sea research, microbiology and mathematic modelling as well as classic beach litter counts by volunteers contributed to the broad awareness of marine litter as a problem of global significance. The authors summarise more than five decades of marine litter research, which receives growing attention after the recent discovery of great oceanic garbage patches and the ubiquity of microscopic plastic particles in marine organisms and habitats. In 16 chapters, authors from all over the world have created a universal view on the diverse field of marine litter pollution, the biological impacts, dedicated research activities, and the various national and international legislative efforts to combat this environmental problem. They recommend future research directions necessary for a comprehensive understanding of this environmental issue and the development of efficient management strategies. This book addresses scientists, and it provides a solid knowledge base for policy makers, NGOs, and the broader public.
