

1. Record Nr.	UNINA9910140492903321
Titolo	Ecosystem sustainability and global change // edited by Andre Monaco, Patrick Prouzet
Pubbl/distr/stampa	Hoboken, New Jersey : , : ISTE Ltd/John Wiley and Sons Inc, , 2014
ISBN	1-119-00772-0 1-119-00770-4 1-119-00771-2
Descrizione fisica	1 online resource (235 p.)
Collana	Oceanography and marine biology series. Seas and oceans set
Disciplina	333.95 333.95/16
Soggetti	Marine ecosystem management
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	From the Seas and oceans set coordinated by Andre Mariotti and Jean-Charles Pomerol.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Title Page; Copyright; Contents; Foreword; 1: Ocean, Biodiversity and Resources; 1.1. The history of life in the oceans; 1.2. Specifics of marine biodiversity; 1.3. Renewable living resources; 1.3.1. Fisheries; 1.3.2. Aquaculture; 1.3.2.1. The farming of carnivorous species; 1.3.2.2. Impact on the environment; 1.3.2.3. Introduction of species; 1.3.2.4. Zootechnical research; 1.3.2.5. The future of aquaculture; 1.4. Ocean and public health; 1.5. Research of molecules of interest of marine origin; 1.6. Research in marine models (regarding their originality and specificity) 1.7. Conclusion 1.8. Bibliography; 2: Pelagic Marine Ecosystems and Biogeochemical Cycles; 2.1. Introduction; 2.1.1. Ocean dynamics: surface and deep circulation; 2.1.1.1. Surface circulation and marine currents; 2.1.1.2. Vertical mixing and deep thermohaline circulation; 2.2. Marine pelagic ecosystems: from viruses to whales; 2.2.1. Different points of view on marine pelagic ecosystems; 2.2.2. Main types of planktonic marine ecosystems; 2.3. Pelagic ecosystems and biogeochemical cycles: inseparable; 2.3.1. Dissolved inorganic nutrients; 2.3.1.1. Essential chemical elements 2.3.1.2. Uptake of dissolved inorganic nutrients by pelagic ecosystems 2.3.1.3. Recirculation of dissolved inorganic nutrients into

the environment; 2.3.1.4. Vertical transport of dissolved inorganic nutrients; 2.3.1.5. Biogeochemical cycles involving dissolved inorganic nutrients; 2.3.2. Dissolved gases; 2.3.2.1. Gases in pelagic ecosystems; 2.3.2.2. Uptake of dissolved gases by pelagic ecosystems; 2.3.2.3. Recirculation of dissolved gases in the environment; 2.3.2.4. Vertical transport of dissolved gases; 2.3.2.5. Biogeochemical cycles involving dissolved gases
2.3.3. Particulate inorganic carbon
2.3.3.1. CaCO₃ in pelagic ecosystems; 2.3.3.2. Formation (precipitation) of CaCO₃ by pelagic ecosystems; 2.3.3.3. Dissolution of CaCO₃; 2.3.3.4. Vertical transport of CaCO₃; 2.3.3.5. Biogeochemical cycles involving CaCO₃; 2.3.4. Dissolved organic carbon; 2.3.4.1. Labile and refractory dissolved organic carbon; 2.3.4.2. Formation of DOC by pelagic ecosystems; 2.3.4.3. Circulation of DOC in the environment; 2.3.4.4. Vertical transport of DOC; 2.3.5. Particulate organic carbon; 2.3.5.1. Living and non-living particulate organic carbon
2.3.5.2. Formation of POC by pelagic ecosystems
2.3.5.3. Recirculation of POC into the environment; 2.3.5.4. Transformation of size of organic particles; 2.3.5.5. Vertical transport of POC; 2.3.5.6. Biogeochemical cycles involving POC; 2.4. The ocean in the rescue of the planet: carbon pumping and sequestration; 2.4.1. Carbon pumps and carbon sequestration in the ocean; 2.4.2. The four ocean carbon pumps; 2.5. Biogeochemical equilibria, ecosystems and human societies: danger!; 2.6. Bibliography; 3: Indicators; 3.1. Introduction; 3.2. Approach
3.2.1. Context: managing human activities in marine ecosystems

Sommario/riassunto

This volume provides various examples and dimensions, chemical, biological, climatic, or related to extreme (hazards). It describes, by reciprocity, the vulnerability of ecosystems, resources, heritage, human health and, consequently, economic and social sectors. It considers climate scenarios and socio-economic status indicators research, design strategies and patterns of adaptation, development of innovative monitoring systems, analysis of perceptions of major hazards and valuation of ecosystem services.
