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Nota di contenuto	Cover; Contents; Chapter 1 The deep-sea dimension; The scale of the task; The vertical dimension; Differences between marine and terrestrial ecosystems; Measurements and methods; Biological sampling; Conclusion; Chapter 2 Living, growing, and daylight; The fuel source: primary production; The seasonal cycle; Measurements of primary production; Grazing and secondary production; Conclusion; Chapter 3 Life at the bottom; The benthic environment; Sampling the benthos; Food resources; Hydrothermal vents and cold seeps; The hadal zone; Spatial heterogeneity; Conclusion; Chapter 4 Patterns and changesGlobal views and patterns; Horizontal distributions; Vertical distributions; Conclusion; Chapter 5 On being efficient; Energy management; Maximizing energy input-how to eat a lot; Maximizing assimilation efficiency; Minimizing energy output-how to keep up in the water; Metabolism, energy, and pressure; Conclusion; Chapter 6 Feeling and hearing; Sensing vibrations; Vibrations in water; The hydrodynamic receptor system of fishes; Sound production by fishes; Invertebrate hydrodynamic receptors; Sounds of marine mammals; Electroreception and magnetic cues; Conclusion; Chapter 7 Chemical messagesTaste or smell?; Chemical cues and receptors; Conclusion; Chapter 8 Seeing in the dark; Light in the ocean; Eyes and their design

conflicts; Fish; Invertebrates; Conclusion; Chapter 9 Camouflage, colour, and lights; Camouflage and colour; Lights in a dark environment: bioluminescence; Conclusion; Chapter 10 Size, sex, and seasonality; Life histories; Fecundity and egg size; Body size; Sex; Juvenile characters (progenesis); Seasonality; Conclusion; Chapter 11 A wonderful variety of life: biodiversity of the deep-sea fauna; Origins and habitats; What is biodiversity? Conclusion; References; Appendix: The marine phyla; Introduction; 'Kingdom' Protista: some important heterotrophs; Kingdom Animalia; Index;

Sommario/riassunto

The deep ocean environment is the most extensive on our planet. Its denizens are normally unseen but whenever they are exposed to view they are regarded as bizarre aliens from a different world. The Biology of the Deep Ocean takes a close look at this apparently hostile world and explains how its inhabitants are exquisitely adapted to survive and flourish within it.The book begins with an analysis of how conditions in the oceanic environment differ from those in the familiar terrestrial world and then describes the techniques (and ingenuity) required to reveal the populations inhabiting the co