

1. Record Nr.	UNINA9910254010703321
Autore	Schiebel Ralf
Titolo	Planktic Foraminifers in the Modern Ocean // by Ralf Schiebel, Christoph Hemleben
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2017
ISBN	3-662-50297-6
Edizione	[2nd ed. 2017.]
Descrizione fisica	1 online resource (XVII, 358 p. 161 illus., 49 illus. in color.)
Disciplina	593.12
Soggetti	Oceanography Geobiology Paleontology Zoology Biogeosciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Species Classification, Test Architecture, Shell Ontogeny, Species Phylogeny -- Sampling Methods and Faunal Analysis -- Cultivation -- Biology, Cellular Ultrastructure, Host Symbiont Relationships, Trophic Activity and Nutrition, Reproduction -- Molecular Genetics in Modern Species -- Ecology -- Stable Isotopes - Paleoceanography -- Element Ratios -- Sedimentation and Preservation of Tests -- Applications.
Sommario/riassunto	This book provides a comprehensive overview of the taxonomy, biology, sedimentation, and carbonate geochemistry of modern species. Students, early career and advanced scientists alike will profit from a broad synthesis of the current understanding of planktic foraminifers as an ecological indicator, biogeochemical factories, and proxies in paleoceanography. The classification of modern species is amply illustrated with electron and light microscope images of morphotypes, addresses the state-of-the-art of molecular genetics of species, and provides a detailed guide for any laboratory analyses. The biology of planktic foraminifers is extensively discussed in chapters dedicated to the cellular ultrastructure, nutrition, symbionts, reproduction, ontogeny, and test architecture. Building on the

biological prerequisites, the distribution of planktic foraminifers is discussed at regional to global scale. The geochemistry and sedimentation of tests are considered in relation to the ecology of the living animal. In the final chapter, which examines the most common methods in planktic foraminifer research, hands-on information is provided on sampling, processing and analyzing samples in the laboratory, as well as selected established methods for data interpretation. The various topics discussed in this book are aimed at the application of planktic foraminifers as sensitive indicators of the changing climate and marine environment.

---