

Contents

Introduction	1
Aaron Micallef, Sebastian Krastel and Alessandra Savini	
Part I Data and Methods in Submarine Geomorphology	
Sidescan Sonar	13
Ingo Klaucke	
Multibeam Echosounders	25
John E. Hughes Clarke	
Reflection and Refraction Seismic Methods	43
Gareth J. Crutchley and Heidrun Kopp	
Quantitative Analyses of Morphological Data	63
Philippe Blondel	
Seafloor Sediment and Rock Sampling	75
Aggeliki Georgiopoulou	
ROVs and AUVs	93
Veerle A.I. Huvenne, Katleen Robert, Leigh Marsh, Claudio Lo Iacono, Tim Le Bas and Russell B. Wynn	
Part II Submarine Landforms and Processes	
Origin and Geomorphic Characteristics of Ocean Basins	111
Peter T. Harris and Miles Macmillan-Lawler	
Drivers of Seafloor Geomorphic Change	135
Angelo Camerlenghi	
Shallow Coastal Landforms	161
Fantina Madricardo and Federica Rizzetto	

Continental Shelf Landforms	185
Ruth Durán and Jorge Guillén	
Submarine Glacial Landforms	207
Christine L. Batchelor, Julian A. Dowdeswell and Dag Ottesen	
Submarine Landslides	235
Joshu Mountjoy and Aaron Micallef	
Submarine Canyons and Gullies	251
David Amblas, Silvia Ceramicola, Thomas P. Gerber, Miquel Canals, Francesco L. Chiocci, Julian A. Dowdeswell, Peter T. Harris, Veerle A.I. Huvenne, Steven Y.J. Lai, Galderic Lastras, Claudio Lo Iacono, Aaron Micallef, Joshu J. Mountjoy, Charles K. Paull, Pere Puig and Anna Sanchez-Vidal	
Submarine Fans and Their Channels, Levees, and Lobes	273
Mark E. Deptuck and Zoltán Sylvester	
Contourite Drifts and Associated Bedforms	301
Ibimina Esentia, Dorrik Stow and Zeinab Smillie	
Volcanic Islands and Seamounts	333
Daniele Casalbore	
Mid-ocean Ridges	349
Neil C. Mitchell	
Cold Seep Systems	367
Silvia Ceramicola, Stéphanie Dupré, Luis Somoza and John Woodside	
Abyssal Hills and Abyssal Plains	389
Marie-Helene Cormier and Heather Sloan	
Oceanic Trenches	409
Jacob Geersen, David Voelker and Jan H. Behrmann	
Cold-Water Carbonate Bioconstructions	425
Claudio Lo Iacono, Alessandra Savini and Daniela Basso	
Part III Applied Submarine Geomorphology	
Applied Geomorphology and Geohazard Assessment for Deepwater Development	459
Roger Moore, Geoff Davis and Oliver Dabson	
Seabed Mining	481
Anne Peukert, Sven Petersen, Jens Greinert and François Charlot	
Fishing Activities	503
Ferdinand K.J. Oberle, Pere Puig and Jacobo Martín	

National Programmes: Geomorphological Mapping at Multiple Scales for Multiple Purposes 535
Terje Thorsnes, Lilja R. Bjarnadóttir, Alexandra Jarna, Nicole Baeten, Gill Scott, Janine Guinan, Xavier Monteys, Dayton Dove, Sophie Green, Joana Gafeira and Alan Stevenson

Part IV Conclusion

Conclusion 555
Aaron Micallef, Sebastian Krstel and Alessandra Savini

Erratum to: Submarine Geomorphology E1
Aaron Micallef, Sebastian Krstel and Alessandra Savini



<http://www.springer.com/978-3-319-57851-4>

Submarine Geomorphology

Micallef, A.; Krastel, S.; Savini, A. (Eds.)

2018, XV, 556 p. 195 illus., 55 illus. in color., Hardcover

ISBN: 978-3-319-57851-4