

# Contents

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

<b>Continental Shelf Landforms</b> .....	185
Ruth Durán and Jorge Guillén	
<b>Submarine Glacial Landforms</b> .....	207
Christine L. Batchelor, Julian A. Dowdeswell and Dag Ottesen	
<b>Submarine Landslides</b> .....	235
Joshu Mountjoy and Aaron Micallef	
<b>Submarine Canyons and Gullies</b> .....	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	
<b>Submarine Fans and Their Channels, Levees, and Lobes</b> .....	273
Mark E. Deptuck and Zoltán Sylvester	
<b>Contourite Drifts and Associated Bedforms</b> .....	301
Ibimina Esentia, Dorrik Stow and Zeinab Smillie	
<b>Volcanic Islands and Seamounts</b> .....	333
Daniele Casalbore	
<b>Mid-ocean Ridges</b> .....	349
Neil C. Mitchell	
<b>Cold Seep Systems</b> .....	367
Silvia Ceramicola, Stéphanie Dupré, Luis Somoza and John Woodside	
<b>Abyssal Hills and Abyssal Plains</b> .....	389
Marie-Helene Cormier and Heather Sloan	
<b>Oceanic Trenches</b> .....	409
Jacob Geersen, David Voelker and Jan H. Behrmann	
<b>Cold-Water Carbonate Bioconstructions</b> .....	425
Claudio Lo Iacono, Alessandra Savini and Daniela Basso	
<b>Part III Applied Submarine Geomorphology</b>	
<b>Applied Geomorphology and Geohazard Assessment for Deepwater Development</b> .....	459
Roger Moore, Geoff Davis and Oliver Dabson	
<b>Seabed Mining</b> .....	481
Anne Peukert, Sven Petersen, Jens Greinert and François Charlot	
<b>Fishing Activities</b> .....	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 Krastel and Alessandra Savini



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

Submarine Geomorphology

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

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

ISBN: 978-3-319-57851-4