

GEohab 2018

Santa Barbara, USA



Monday, May 7

WORKSHOP

Beyond Mapping: Analyzing and Understanding Habitat Patterns in Space and Time

- 8:00 Registration opens
- 9:00 Workshop Introductions
- 9:30 Session 1: Understanding Where
- 10:15 BREAK
- 10:30 Session 2: Measuring Size, Shape and Distribution
- 11:15 Session 3: Determining How Places are Related
- 12:00 LUNCH
- 13:30 Session 4: Finding Best Locations and Paths
- 15:00 BREAK
- 15:15 Session 5: Detecting and Quantifying Patterns; and Session 6: Making Predictions
- 16:30 Wrap-Up Discussion

Ice-Breaker Social

- 18:00 **Topa Topa Brewery and Fox Winery Tasting Room**
120 Santa Barbara St, Santa Barbara, CA 93101

Tuesday, May 8

Keynote Address I and Technical Sessions

- 8:00 Registration opens
- 9:00 Opening remarks
- 9:20 Keynote Address Telescoping Resolutions for Abyssal Seafloor Mapping C.K. Paull, D.W. Caress, J. Barry, E. Lundsten, K. Anderson, M. Schwehr, R. Gwiazda
- 9:40 Gold Sponsor Welcome  D. Stephens

SESSION 1: Coastal and Shallow-Water Habitats I

Chair: Chris Caldow

- 9:45 Talk Relationships between Eastern Oyster Density and Seabed Metrics Derived from Multibeam Sonar D.G. Bruce, H. Townsend, J.V. Lazar, A. McGowan
- 10:00 Ron McDowell Student Talk Multiscale Hierarchical Classification For Benthic Habitat Mapping P.H.J. Porskamp, A. Rattray, M.A. Young, D. Ierodiaconou
- 10:15 Talk Habitat Mapping the Fjords of Chilean Patagonia using Autonomous Underwater Vehicles K.L. Boswarva, C. Abernethy, V. Häussermann, C. Fox, B. Narawanaswamy, J.A. Howe
- 10:30 BREAK

SESSION 2: Coastal and Shallow-Water Habitats II

Chair: Daniel Ierodiaconou

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| 11:00 | Talk | Seagrass Mapping on a Budget using a Kayak, Lowrance HDS Sidescan Sonar System, ReefMaster and Google Earth Software | K.C. Kingon, N. Thijs, M. Robinson, B. Maharaj, M. Garcia |
| 11:15 | Ron McDowell Student Talk | Integrating Benthic Habitat Mapping, Landscape Connectivity and Marine Protected Area Design | B. Proudfoot, R. Devillers, C. Brown, Y. Wiersma, E. Edinger |
| 11:30 | Talk | MORE-MAPS: A Suite of Methods and Open Source Software to Facilitate Mapping of Submerged Habitats Via Multispectral Satellite Imagery | J. Kibebe, N.T. Shears |
| 11:45 | Lightning Talk | The Utility of Multispectral Backscatter for Characterizing Benthic Habitats | B. Costa |
| 11:50 | Lightning Talk | Connecting Physical and Ecological Tidal Marsh Processes Through A Combination of Remote Sensing Platforms | S.M. Dohner, D.C. Miller, T. Giorno |
| 11:55 | Lightning Talk | Amphibious Coastal and Nearshore Habitat Mapping Following a Massive Earthquake in Kaikōura, New Zealand | E. Johnstone, O. Friedlieb, R. Davies, G. Gearheart, D. Ierodiaconou |

12:00

LUNCH

SESSION 3: Coastal and Shallow-Water Habitats III

Chair: Kim Picard

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| 13:10 | Talk | Predicting Optimal Sites for Habitat Restoration using Multi-Species Distribution Modeling | A.J. Zellmer, J.T. Claisse, C. Williams, S. Schwab, D.J. Pondella, II |
| 13:25 | Ron McDowell Student Talk | A Review of Benthic Habitat Mapping on the South African Continental Shelf and Margin | T. Pillay, H.C. Cawthra, A. Lombard |
| 13:40 | Ron McDowell Student Talk | Acoustic Investigation of Gasdomes in Lumparn Bay, Aland Island | A. Nyman |
| 13:55 | Talk | A Cost-Effective Method for Mapping Seabed Habitats Using Calibrated Backscatter: A Case Study for the Multi-Year EVHOE Bottom-Trawl Survey Using Simrad ME70 tibeam Echosounder | R. Fezzani, L. Berger, X. Lurton |
| 14:10 | Talk | New Data about Geomorphology and Late Pleistocene-Holocene Sedimentary Processes of the Eastern Gulf of Finland Based on High-resolution Multibeam and Sub-Bottom Profiling Data | D. Ryabchuk, A. Sergeev, A. Krek, M. Kapustina, E. Tkacheva, V. Zhamoida, L. Budanov, A. Danchenkov |

14:25

BREAK

SESSION 4: Coastal and Shallow-Water Habitats IV

Chair: Vaughn Barrie

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| 14:55 | Lightning Talk | Multibeam Backscatter Calibration by Comparison with a Reference Single-Beam Echosounder | X. Lurton, L. Berger, N. Le Bouffant, D. Eleftherakis, A. Pacault, |
| 15:00 | Lightning Talk | Characterizing Drivers of Fish Biomass on Nearshore Rocky Reef in the Southern California Bight | D.J. Pondella, II, S.E. Piacenza, J.T. Claisse, C.A. Williams, J.P. Williams, A.J. Zellmer, J.E. Caselle |
| 15:05 | Lightning Talk | Towards Habitat Mapping Multibeam Data Collection Protocols - A Case Study from Coastal Otago, New Zealand | E.J. Tidey, M.J. Desmond |
| 15:10 | Lightning Talk | High-Resolution Habitat Mapping off Capri Island, Southern Italy | C. Violante, M. De Lauro |

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| 15:15 | Lightning Talk | Probabilistic Substrate Mapping in Rivers and Seas with Conditional Random Fields of Acoustic Backscatter | D. Buscombe, P.E. Grams |
| 15:20 | Lightning Talk | Habitat Mapping of the Great Salma Strait (Kandalaksha Bay of the White Sea) | V. Kozlovskiy, K. Kotkin*, Y. Terekhina, M. Solovyeva, D. Zagretdinova, P. Mikhailukova, A. Isachenko, M. Tokarev |
| 15:25 | 1-min Poster Flash Talks | See Pages 8-12 for Titles | See Pages 8-12 for Authors |
| 16:00 | Poster Reception | See Pages 8-12 for Titles | See Pages 8-12 for Authors |
| 17:30 | Meeting | The Backscatter Working Group: Where Do We Go from Here? Welcome - The Marine Geophysical Research Backscatter Special Issue Data Acquisition - Constraints and Specifications Multi-Frequency Backscatter Measurement and Processing Multibeam Backscatter Data Consistency: Comparison of Backscatter Data Processing Software Seafloor Backscatter Variability Backscatter Mapping: Resolution and Accuracy Wrap-Up | G. Lamarche, X. Lurton |

Wednesday, May 9

Keynote Address II and Technical Sessions

SESSION 5: Mapping, Planning and Impact Assessment for Ocean Energy

Chair: Donna Schroeder

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| 8:00 | Registration opens | | |
| 8:30 | Talk | Planning for Floating Wind Energy in California - A Case Study | F.N. Pendleton |
| 8:45 | Talk | Forecasting Fish Community Biomass and Production on Offshore Pacific Oil Platforms under Three Decommissioning Scenarios | E.L. Meyer-Gutbrod, M. Love, R. Miller, J. Claisse, D.M. Schroeder |
| 9:00 | Talk | An Analysis of the Fish Assemblages Around 23 Oil and Gas Platforms off California with Comparisons to Natural Reefs | J.T. Claisse, M.S. Love, A. Roeper |
| 9:15 | Talk | Standardized and Cost-effective Benthic Habitat Mapping Tools for Marine and Hydrokinetic Site Environmental Assessments | E. Revelas, B. Sackmann, I. Stupakoff, C. Jones |
| 9:30 | Talk | Bathymetric and Reflectivity-Derived Data Fusion for Preliminary Seafloor Segmentation and Strategic Bottom Sampling | G. Masetti, L.A. Mayer, L.G. Ward, D. Sowers |
| 9:45 | Talk | A Multispectral Bayesian Method for Improved Discrimination Performance of Seabed Sediment Classification using Multi-Frequency Multibeam Backscatter Data | T.C. Gaida, T.A. Tengku Ali, M. Snellen, D.G. Simons |
| 10:00 | Lightning Talk | Marine Geomorphometric Toolbox (MGT): A Set of Tools for Bathymetry Segmentation | M. Di Stefano, L.A. Mayer |
| 10:05 | BREAK | | |

SESSION 6: Marine Minerals

Chair: Geoffroy Lamarche

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| 10:35 | Keynote Address | Multifarious Benthic Habitats Characterize Deep-Ocean Mineral Deposits | J.R. Hein, A. Gartman, K. Mizell |
| 10:55 | Ron McDowell Student Talk | Assessing the Impacts of Manganese Nodule Mining on the Marine Environment - Implications for Environmental Risk Assessment | L.M. Kaikkonen, R. Venesjarvi, H. Nygard, A. Kotilainen, S. Kuikka |
| 11:10 | Talk | Exploration for Offshore Placer Deposits: Integrating Shallow Seismics with High Resolution Seabed Mapping Techniques - NW Mayo, Ireland | S. Burke, A. Lim, Z. Tóth, A.J. Wheeler |
| 11:25 | Talk | Monitoring the Direct Impact of Sand Extraction on the Bathy-Morphology and the Seabed Sediment in the Belgian Part of the North Sea: Lessons of Ten Years of Measurements | M. Roche, K. Degrendele, A. De Backer, D. Van den Eynde, V. Van Lancker |

SESSION 7: Seeps and Hydrates I

Chair: Geoffroy Lamarche

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| 11:40 | Talk | Acoustic Sensing of Marine Gas Seepage – Opportunities and Pitfalls in Acoustic Analyses of Minor to Major Flux Sites | J. Schneider von Deimling |
| 11:55 | Talk | Gas Flare Database from the Norwegian EEZ – a MAREANO Product | T. Thorsnes, S. Chand, F.C. Nixon, L.R. Bjarnadottir, H. Brunstad, H. Hodnesdal |

12:10

LUNCH

SESSION 8: Seeps and Hydrates II

Chair: Aarno Kotilainen

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| 13:20 | Talk | Seeps along the Pacific Northwest of North America – Ecologically, Biologically and Geologically Significant Habitats | J.V. Barrie, H.G. Greene, K.W. Conway, D.S. Brothers |
| 13:35 | Talk | Geohabitats and Seabed Characteristics at Natural Gas Seepage Sites of the Barents Sea | H. Brunstad, R. di Primio, T. Thorsnes, A. Lepland, S. Chand, J.H. Pedersen, A. Cremiere, M. Andersson, P. Lågstad |

SESSION 9: Deep-Water Coral Habitats I

Chair: Aarno Kotilainen

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| 13:50 | Talk | High Resolution Facies Zonation and Survey Design at a Deep-Water Coral Mound; the Case of Piddington Mound, Porcupine Seabight, NE Atlantic | A. Lim, A. Arnaubec, A. Kane, A. Wheeler |
| 14:05 | Talk | Mapping, Modelling and Monitoring Key Processes and Controls on Cold-water Coral Habitats in Submarine Canyons (MMMonKey_Pro) | A. Wheeler, A. Lim* |
| 14:20 | Talk | Creation of a U.S. West Coast Substratum Map and its use in Estimating Deep-Water Coral Habitat Suitability | J.J. Bizzarro, C. Romsos, M. Poti, L. Gilbane, W. Waldo Wakefield, M. M. Yoklavich |
| 14:35 | Talk | Characterizing Distributions of Deep-Sea Corals on the Pacific Outer Continental Shelf through Spatial Predictive Modeling | M. Poti, L. Bauer, L. Gilbane, M.E. Clarke, M.M. Yoklavich, C.E. Whitmire, A. Powell, J.J. Bizzarro, T.F. Hourigan, M. Coyne |

14:50

BREAK

SESSION 10: Deep-Water Coral Habitats II

Chair: Lisa Gilbane

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| 15:20 | Ron McDowell Student Talk | Predicting the Distribution of Threatened Stony Coral in Caribbean Coral Reef Ecosystems | K. Egan, T.B. Smith, T.S. Viehman, D. Holstein |
| 15:35 | Talk | Deep-Sea Coral Abundance and Diversity on the West Florida Escarpment | Z. Proux, L. Sautter, P. Etnoyer |
| 15:50 | Lightning Talk | Evaluating Oceanographic Drivers of Deep-Sea Corals at Multiple Thematic Scales | V. Lecours, B. Misiuk, E. Edinger, R. Devillers |
| 15:55 | Lightning Talk | Interdisciplinary Approaches for the Study of Cold-Water Coral Ecology and the Production of Habitat Maps to Assist Spatial Management within Submarine Canyons | T.R.R. Pearman, L. Grange, K. Robert, A. Callaway, C. Lo Iacono, R. Hall, V.A.I. Huvenne |
| 16:00 | Lightning Talk | Exploring High Density Aggregations Of Gorgonian Octocorals and Groundfish in the Mesophotic Depth Zone of the Channel Islands National Marine Sanctuary in Southern California | A. Shuler, P. Etnoyer, D. Rosen, A. Lauermaann, L. Kracker, C. Caldow |
| 16:05 | Lightning Talk | Faunal Characterization and Predicted Distribution of Cold-Water Coral Assemblages on the Cabliers Coral Mound (Western Mediterranean) | G. Corbera, C. Lo Iacono, E. Gràcia, J. Grinyó, M. Pierdomenico, V.A.I. Huvenne, R. Aguilar, J.M. Gili |
| 16:10 | Lightning Talk | Semi-Automated Mapping of Cold-Water Coral Carbonate Mounds with Image Segmentation and Random Forest | M. Diesing, T. Thorsnes |

SESSION 11: Nippon Foundation GEBCO Seabed 2030 Project

Chair: Gary Greene

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| | Talk | Recent Applications of Deep Water MBES Studies and Large Programs for Industry, Government and Academia Involving Bathymetry, Backscatter and Water Column Data – An Industry Perspective | E. Saade |
| | Talk | The Nippon Foundation GEBCO Seabed 2030 Project | G. Lamarche, S. Bindra |
| | Panel Discussion | What the Nippon Foundation GEBCO Seabed 2030 Project means for GeoHab | S. Bindra, G. Lamarche, K. Picard, E. Saade (Facilitator G. Greene) |
| 16:40 | Poster Session II | See Pages 8-12 for Titles | See Pages 8-12 for Authors |

19:00 **Conference Dinner (Ronald Reagan Room, Fess Parker Resort)**

Thursday, May 10

Technical Sessions

8:00 Registration Opens
9:00 Gold Sponsor
Welcome



J.R. Steenstrup

SESSION 12: Interactions between Oceanographic Processes and Habitats

Chair: Mary Young

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| 9:05 | Talk | Cross-shelf Transport and Delivery of Larval Flatfish to Nursery Habitat in the Gulf of Alaska | J.L. Pirtle, E.D. Goldstein, J.T. Duffy-Anderson, M.T. Wilson, W.T. Stockhausen, C.W. Mordy, M. Zimmermann |
| 9:20 | Talk | Environmental Drivers of Spatial and Temporal Productivity of Abalone Populations | M.A. Young, E. Trembl, A. Miller, D. Ierodiaconou |

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| 9:35 | Talk | Infralittoral /Circalittoral Biozone Boundary Definition in a Riverine Input Influenced Area | S. Agnesi, A. Annunziatellis, R. Inghilesi, G. Mo |
| 9:50 | Talk | Harmful Algal Blooms (HABs) in İzmir Bay, Aegean Sea | N. Bizzel, K.C. Bizzel* |
| 10:05 | BREAK | | |
| 10:35 | Lightning Talk | Seafloor Geomorphology as Benthic Habitat: GeoHab Atlas of Seafloor Geomorphic Features and Benthic Habitats - Update on the New Edition | P.T. Harris, E.K. Baker |
| SESSION 13: Shelf and Deep-Sea Habitats I | | | |
| Chair: Margaret Dolan | | | |
| 10:40 | Talk | Predictive Rockfish Habitat Modeling in the Salish Sea | J.G. Aschoff, H.G. Greene |
| 10:55 | Ron McDowell Student Talk | Exploring the Potential of Multi-Frequency Multibeam Backscatter Regarding the Classification of Marine Sedimentary Environments | I. Schulze, P. Feldens, M. Schönke, S. Papenmeier, D. Wilken |
| 11:10 | Talk | High Resolution Habitat Mapping using Continuous Variables to Comply with Multiple Classification Schemes and Scales in a Complex Environment – A Study from the Swedish National Marine Mapping Program | G. Kågesten, D. Fiorentino, F. Baumgartner, F. Freire, A. Dahlgren, L. Wilin, O. Hallberg, L. Zillen |
| 11:25 | Ron McDowell Student Talk | Incorporating Spatial Analyses into Conservation and Monitoring of Deep-Sea Megafauna in Marine Protected Areas (MPAs) | S. de Mendonça, A. Metaxas |
| 11:40 | Lightning Talk | Applying a Standardized Classification Scheme (CMECS) to Multibeam Sonar and ROV Video Data on Gosnold Seamount | D. Sowers, J.A. Dijkstra, G. Masetti, L.A. Mayer, K. Mello, M. Malik |
| 11:45 | Lightning Talk | Multispectral Seafloor Classification: Applying a Multidimensional Hypercube Approach to Unsupervised Seafloor Segmentation | C.J. Brown, H. Varma |
| 11:50 | Lightning Talk | Requesting and Comparing Intermediate Results from Several Backscatter Data Processing Software: A First Step Towards Future Consistency of Multibeam Backscatter Estimation | A.C.G. Schimel, M. Roche, M. Malik, C. Vrignaud, G. Masetti, M. Dolan |
| 11:55 | Lightning Talk | Comparison of Megainfaunal Assemblages Observed on Hueneme Shelf in 1974 and in 2012 Geophysical/Acoustic Habitat Maps | D.C. Lees |
| 12:00 | Lightning Talk | A Geomorphological Seabed Classification for the Northeast Brazilian Continental Margin | T. Araujo |
| 12:05 | Lightning Talk | Seabed Character and Associated Habitats of a Tropical Shelf: Equatorial Rio Grande do Norte Shelf, NE Brazil | H. Vital, S. Brandão, M. Viana, P. Eichler, T. Leite, F. Freire, D. Batista, M. Gomes, M. Nogueira, L. Silva |
| 12:10 | Lightning Talk | Biological and Geomorphological Description of a Prominent Escarpment along Ireland's Shelf Edge in the Northeast Atlantic | D. O'Sullivan, Y. Leahy, J. Guinan, F. Sacchetti |
| 12:15 | Lightning Talk | The Continental Shelf of Southern South Africa as a Refuge for Early Modern Humans through Glacial Conditions | H.C. Cawthra, R.M. Cowling, C.W. Marean |
| 12:20 | Lunch | | |

SESSION 14: Shelf and Deep-Sea Habitats II

Chair: Craig Brown

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| 13:30 | Talk | Methodological Approach To Characterized Coral Reef Ecosystem With Hydroacoustic In The Surrounding Area Of The Cayo Serrana Island, Seaflower Biosphere Reserve, Colombia | S. Martinez-Clavijo, M. Correa-Ramirez, J. Paramo*, C. Ricaurte-Villota |
| 13:45 | Ron McDowell Student Talk | Geohabitats Mapping of the Continental Shelf of Tamandare (PE), Brazil | V.C. Fontes, M.P. Gomes, B.P. Ferreira, M. Maida, H. Vital |
| 14:00 | Ron McDowell Student Talk | The Brazilian Equatorial Margin Geomorphometry and Benthoscape | A.C.R.F. Lavagnino, A.C. Bastos, F.V. Vieira, R. Moura, G. Amado-Filho, F. Morais, G.C. Boni |
| 14:15 | Talk | From Shallow Reefs to the Abyss: Seafloor Substrate Maps to Support Fisheries and Coral Science around Hawai'i and the Pacific Remote Islands Marine National Monument (PRIMNM) | D. Dove, T. Acoba, B.L. Richards, M. Weijerman, R. Suka, A. DesRochers, J.R. Smith |
| 14:30 | Talk | Geomorphic Mapping of Perth Submarine Canyon, Southwest Australia: Insights into Canyon Evolutionary Processes and Relevance for Management | S. Nichol, R. Nanson, K. Picard, Z. Huang, M. McCulloch |
| 14:45 | Talk | Underwater Hyperspectral Imaging in the Adriatic Sea: A New Technology for Benthic Habitat Mapping and Monitoring | F. Fogliani, L. Angeletti, V. Bracchi, S. Ekehaug, G. Chimienti, M. Gudmundsen, V. Grande, I. M. Hansen, F. Marchese, A. Mercorella, M. Prampolini, M. Taviani, A. Vertino, F. Badamenti, C. Corselli, I. Erdal, E. Martorelli, A. Savini |
| 15:00 | BREAK | | |
| 15:30 | GeoHab 2018 Closing Remarks | | |
| 16:00 | GeoHab Business Meeting | | |

Friday, May 11

Field Trip: Santa Cruz Island, Channel Islands National Marine Sanctuary and Park

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| 8:30 | Departure by bus from Fess Parker Resort |
| 9:30 | Arrival in Ventura |
| 10:00 | Boat excursion with marine mammal and geology viewing |
| 11:30 | Lunch at Scorpion Cove, Santa Cruz Island |
| 13:00 | Guided geology and biology walking tour of Santa Cruz Island |
| 15:00 | Boat return trip to Ventura |
| 16:00 | Bus departs for return trip to Fess Parker Resort |
| 17:00 | Arrival at Fess Parker Resort |

Posters with 1-Minute Flash Talks

Coastal and Shallow-Water Habitats

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| 1 | Reclaiming the Knowledge of Fisheries Habitat Distribution within a Customary Management Framework | M.J. Desmond, C.D. Hepburn, N.J. Scott, E.J. Tidey |
| 2 | Cross Shelf Changes in Reef Morphology and its Implications for Connectivity and Conservation | L.C.L. Ferreira, A.C. Bastos, G.C. Boni, G.M. Amado Filho, N. Oliveira, R.L.Moura |
| 3 | Application of GIS Analyses to Quantify Bedform Stability in the German Bight, North Sea | D.S. Galvez, S. Papenmeier, H.C. Hass |
| 4 | Repeat-Mapping Bathymetric Change and Substrates in a Large River: Application to Sediment Budgeting and Physical Habitat Mapping in the Colorado River in Grand Canyon | P.E. Grams, M.A. Kaplinski, and D. Buscombe |
| 5 | ECOMAP - Baltic Sea Environmental Assessments by Innovative Opto-Acoustic Remote Sensing, Mapping, and Monitoring | P. Held, F. Gausepohl, F. Weinberger, P. Pocwiardowski, P. Feldens, F. Gross, D. Wilken, J. Schneider von Deimling |
| 6 | Mapping Coastal Coral Reef Habitats Using Landsat 8 Imagery and GWR | C.B.L. Silveira, G.M.R. Strenzel, M. Maida, T.C.M Araújo, P. Pereira, B.P. Ferreira |
| 7 | One's Trash is Another's Treasure: Utilizing Water Column Returns from Multibeam Acoustic Bathymetric Data to Assess Biomass Distribution and Habitat Utilization | V.E. Price, J.T. McClinton |
| 8 | Impact of Seafloor Sub-mm Topography on Broad-Band Acoustic Scatter | M. Schönke, P. Feldens, S. Papenmeier, D. Wilken, P. Held, L. Wiesenbergl, I. Schulze, J. Schneider von Deimling, S. Krastel |
| 9 | Quantifying Benthic Worm Reef Ecosystem Services through Biological Sampling and High-Resolution Remote Sensing Platforms | C.L. Stockwell, S.M. Dohner, D.C. Miller |
| 10 | Restoring a Nearshore Rocky Reef Ecosystem in the Challenge of an Urban Setting | D.J. Pondella, II, J.T. Claisse, J.P. Williams, C.M. Williams, M.J. Robart, D. Witting |
| 11 | Using Cold-Water Corals from the Porcupine Bank Canyon, NE Atlantic, as a Palaeoarchive | L.G.R. O'Reilly, A.J. Wheeler, A. Lim, O.J. O'Connor |
| 12 | Estimating the Global Distribution of Cold-Water Coral Communities on Rocky Walls | K. Robert, D.O.B. Jones, A. Georgiopoulou, V.A.I Huvenne |
| 13 | Overlooked Deep Water 'Reefs': Mapping Mediterranean <i>Dendrophyllia</i> Habitats | G. Castellan, L. Angeletti, M. Taviani, F. Foglini |

Interactions Between Oceanographic Processes and Habitats

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| 14 | Mapping Vulnerable Marine Ecosystems in Arctic and Sub-Arctic Waters | J.M. Burgos, L. Buhl-Mortensen, P. Buhl-Mortensen, S.H. Ólafsdóttir, P. Steingrund, S.Á. Ragnarsson |
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Mapping, Planning and Impact Assessment for Ocean Energy

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| 15 | A Multispectral Bayesian Method for Improved Discrimination Performance of Seabed Sediment Classification Using Multi-Frequency Multibeam Backscatter Data | T.C. Gaida, T.A. Tengku Ali, M. Snellen, D.G. Simons |
| 16 | Repeated Multibeam Surveys to Assess Sea-Floor Changes Induced by Recently Build Hard Structures in a Very Shallow Coastal Environment | F. Madricardo, C. Toso, S. Fogarin, A. Petrizzo, A. Kruss, E. Molinaroli, N.M. Pizzeghello, F. Foglini, F. Trincardi |

Shelf and Deep-Sea Habitats

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| 17 | Mapping Bedforms with Different Bathymetry Grid Resolutions – Link between Mapping Scale and Time-Scale of Geological Processes | V.K. Bellec, R. Bøe, L.R. Bjarnadóttir, M. Dolan |
| 18 | The Norwegian Seabed Mapping Programme MAREANO – Moving into New Waters | L.R. Bjarnadóttir, T. Thorsnes, R. Bøe |
| 19 | Characterizing Benthic Habitats Using Multibeam Sonars and Towed Underwater Video on the West Florida Shelf | J. Brizzolara, J. Gray, E.A. Ilich, S. Grasty, A. Silverman, A. Vivlamore, C. Lembke, M. Hommeyer, S. Locker, D. Naar, S. Murawski |
| 20 | Seabed Sediment Mobilisation in the Deep Ocean – An Example from Broken Ridge, Southeastern Indian Ocean | B. Brooke, K. Picard, M. Tran, J. Siwabessy, M.F. Coffin |
| 21 | Marine Geomorphology of Cubbera Snapper Spawning Aggregation Sites in the SW Atlantic | B.P. Ferreira, M. Maida, G. Olavo, S. Rezende, G.R. Strenzel, A. França, P. Malafaia |
| 22 | Seabed Segmentation of Sidescan and Multibeam Sonar Data in SonarWiz | D.P. Finlayson |
| 23 | Southern California Seafloor Mapping Initiative | R. Freedman, L. Kracker, T. Battista, W. Sautter, B. Costa, C. Caldow |
| 24 | Mapping Benthic Habitat and Fish Populations on the West Florida Shelf: C-SCAMP Progress and Promise | M. Hommeyer, J. Brizzolara, H. Broadbent, S. Grasty, J. Gray, E. Hughes, A. Ilich, C. Lembke, S. Locker, A. Silverman, S. Murawski |
| 25 | Combining Multibeam Bathymetry and Backscatter with Towed Video Data: An Application for Fisheries Management | A. Ilich, J. Brizzolara, S. Grasty, J. Gray, M. Hommeyer, C. Lembke, S. Locker, A. Silverman, T. Switzer, A. Vivlamore, S. Murawski |
| 26 | A Method for Applying Crowd-Sourced Single Beam Bathymetry and Substrate Classification to Large-Scale Benthic Habitat Mapping | E. Novaczek, B. Misiuk, R. Devillers, E. Hynick, M. Li, G. Cameron, N. King |
| 27 | Improving the Accuracy of Benthic Habitat Maps in the Gulf of Mexico: Integration of BOEM Gulf of Mexico High-Resolution Bathymetry and Geophysical Data with a CMECS-Classified Geomorphic Features Basemap | K. Rose |
| 28 | Using ROV Video Imagery to Map Benthic Habitat and Fish and Invertebrate Populations on a Defined Rocky Reef Feature off Central California | D. Rosen, A. Laueremann, M. Prall, L. Rauchenstein, H. Lovig |

Posters

Coastal and Shallow-Water Habitats

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| 29 | Case Study from the South African Nearshore Mapping Programme: Continental Shelf Deposits and Processes in Table Bay, Cape Town | H.C. Cawthra, M. MacHutchon, W. van Zyl |
| 30 | The Influence of Ocean Currents on Macrofauna Distribution in a Coarse Grain Habitat | S. Coers |
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