

## ISABEL C. ROMERO

### Professional Address

College of Marine Science, University of South Florida  
140 7<sup>th</sup> Ave. S., St. Petersburg, FL, 33701  
email: isabelromero@mail.usf.edu

### Education

- 2009 Doctor of Philosophy, Ocean Sciences, Earth Science Department, University of Southern California (USC), Los Angeles (Advisors: Dr. D. Capone, Dr. M. Jacobson)
- 1998 Bachelor of Science, Marine Biology, Department of Biology, Universidad del Valle, Cali, Colombia (Advisor: Dr. J. Cantera-Kintz)

### Grants

- 2019-2024 NOAA RESTORE Science Program: *Trends and drivers of faunal abundance of the offshore Gulf of Mexico: narrowing the data gap in the Gulf's largest ecosystem component* (Total budget: \$2,794,147; PI Tracey Sutton, Nova Southeastern University; plus-six other Institutions).
- 2019-2021 National Academies of Sciences, Engineering, and Medicine (NAS), Gulf Research Program Fellowship, \$75,000 to Romero: Gulf of Mexico studies.
- 2019-2020 Gulf of Mexico Research Initiative (GoMRI), \$94,453 to Romero: *Additional Sample Analysis Funds* (Consortium Deep-Pelagic Nekton studies of the Gulf of Mexico). Consortium Leader: Tracey Sutton (Nova Southeastern University)
- 2019 DMR-1644779 NSF/National High Magnetic Field Laboratory: Unlimited analysis of sediment samples (cost not available) and travel stipend (\$500).
- 2018-2020 RFP VI Gulf of Mexico Research Initiative (GoMRI), \$198,188 to Romero: *Resuspension, Redistribution and Deposition of DwH Recalcitrant Hydrocarbons to offshore Depocenters (REDIRECT)*. Collaborators: Arne Dierks (UM), Jeff Chanton (FSU), Gregg Brooks (EC)
- 2018-2019 Gulf of Mexico Research Initiative (GoMRI), \$62,138 to Romero: *Synthesis Contributions Deep-Pelagic Nekton studies of the Gulf of Mexico (DEEPEND)*. Consortium Leader: Tracey Sutton (Nova Southeastern University)
- 2018 Collaborative work to support sample analysis, Dr. W. Patterson (UF), \$5,625 to Romero: *Evaluating reef fish temporal data trends (2015-2017)*.
- 2016-2017 Collaborative work to support sample analysis, Dr. H. Judkins (USFSP), \$7,200 to Romero: *Evaluating analytical methods and temporal data trends in deep-pelagic cephalopods from the Gulf of Mexico*.
- 2015-2017 RFP IV Gulf of Mexico Research Initiative (GoMRI), \$190,321 to Romero: *A time-series analysis of polycyclic aromatic hydrocarbons in GoM deep-pelagic fauna (DEEPEND)*. Consortium Leader: Tracey Sutton (Nova Southeastern University)
- 2009-2010 SeaGrant Los Angeles, California, Research support \$6,000: *Isotopic signals (leaf wax D/H) of ecological responses to environmental change, Carpinteria Salt Marsh Reserve*. (PI: Sarah Feakins, University Southern California, USA).

## **Work Experience**

- 2015-present Research Associate, College of Marine Science, University of South Florida, St. Petersburg, FL
- 2011-2014 Postdoctoral Research Fellow, College of Marine Science, University of South Florida, St. Petersburg, FL.: *Sedimentary biogeochemical indicators of ecosystem change resulting from the BP Deepwater Horizon blowout*. C-IMAGE Consortium (RFP-I, RFP-IV, RFP-VI), DEEP-C Consortium (RFP-I)
- 2010-2011 Postdoctoral Research Fellow, Department of Biological Sciences, University of Southern California-NSF, Los Angeles, CA: *The Importance of Molybdenum Speciation to Nitrogen Fixation and Assimilation in Lakes*
- 2009-2010 Postdoctoral Research Fellow, Department of Earth Sciences, University of Southern California-SeaGrant, Los Angeles, CA: *Project: Biomarker isotopic signals of ecological responses to environmental change at the Carpinteria Salt Marsh Reserve (Santa Barbara County)*
- 2003-2009 Graduate Research Assistant, University of Southern California, Los Angeles, CA: *Biogeochemical indicators of environmental Biocomplexity of Mangroves*
- 1999-2002 Assistant Research Scientist, Universidad del Valle-COLCIENCIAS. Cali, Colombia: *Energy transfer and matter circulation in the Dagua estuary, Colombian Pacific coast*. Field coordinator and data analysis of mangrove litter dynamics and nutrient variability in the water column.
- 1996-1998 Laboratory and Field Assistant, Universidad del Valle (COLCIENCIAS, C.V.C) Cali, Colombia. Several projects: *human impacts in the rivers of Cali; Environmental Impact of Sewage in the Buenaventura Bay; mollusks consumption inventory in the Colombian Pacific Coast*
- 1995-1996 Assistant Curator, Colombian Pacific Coast mollusk reference collection, Universidad del Valle, Colombia.

## **Field research and Oceanographic cruises**

- 2018** Mesopelagic fauna sampling Northern GoM. R/V Point Sur. USF-DEEPEND/GOMRI
- 2018** Depocenters sampling Northern Gulf of Mexico. R/V Point Sur. USF-Mississippi Univ./GOMRI
- 2017** Sedimentary sampling North-South GoM. R/V Weatherbird II. USF, C-IMAGE IV/GOMRI
- 2016** Mexican coastal sampling. UNAM-USF collaboration, C-IMAGE II/GOMRI
- 2015** Mexican offshore sedimentary sampling. R/V Justo Sierra. UNAM-USF, C-IMAGE IV/GOMRI
- 2015** Sedimentary sampling Northern GoM. R/V Weatherbird II. USF/C-IMAGE IV/GOMRI
- 2014** Sedimentary and fish sampling - Northern GoM. R/V Weatherbird II. USF, C-IMAGE I /GOMRI
- 2013** Sedimentary and fish sampling - Northern GoM. R/V Weatherbird II. USF, C-IMAGE I/GOMRI
- 2012** Sedimentary and microbial sampling Orca Basin, GoM. R/V Pelican. USF/Harvard Univ./NSF
- 2010** Microbial sampling and activity in Lake Tahoe, CA. USC/NSF
- 2009** Salt Marshes sampling, Santa Barbara, CA. USC/Sea-Grant Los Angeles
- 2002 – 2007** Mangrove ecosystem sampling, Belize (5 campaigns). USC/NSF-Biocomplexity
- 1998 – 2000** Colombian Pacific Coast mangrove ecosystem sampling, Colombia. Univalle/Colciencias.

## **Peer-Reviewed Publications**

34. Cook, A., A. M. Bernard, K.M. Boswell, H. Bracken-Grissom, M. D'Elia, S. deRada, D. English, R.I. Eytan, T. Frank, C. Hu, M.W. Johnston, H. Judkins, C. Lembke, R.J. Milligan, J. Moore, B. Penta, N.M. Pruzinsky, J.A. Quinlan, T. Richards, **I.C. Romero**, M.S. Shivji, M. Vecchione, M.D. Weber, R. J. D. Wells, T.T. Sutton. 2020. A Multidisciplinary Approach to Investigate Deep-Pelagic Ecosystem Dynamics in the Gulf of Mexico following Deepwater Horizon. *Frontiers in Marine Science*, doi: 10.3389/fmars.2020.548880
33. Beth Polidoro, Cole W. Matson, Mary Ann Ottinger, D. Abigail Renegar, **Isabel C. Romero**, Daniel Schlenk, John Pierce Wise, Jesús Beltrán González, Peter Bruns, Kent Carpenter, Dorka Cobián Rojas, Tracy K. Collier, Thomas F. Duda, Patricia González-Díaz, Richard Di Giulio, R. Dean Grubbs, J. Christopher Haney, John P. Incardona, Guillermo Horta-Puga, Christi Linardich, Jon A. Moore, Daniel Pech, Susana Perera Valderrama, Gina M. Ralph, Kyle Strongin, Amy H. Ringwood, Bernd Würsig. 2020. A Multi- taxonomic Framework for Assessing Relative Petrochemical Vulnerability of Marine Biodiversity in the Gulf of Mexico, *Science of the Total Environment*, <https://doi.org/10.1016/j.scitotenv.2020.142986>
32. Rohal M, Barrera N, Escobar-Briones E, Brooks G, Hollander D, Larson R, Montagna PA, Pryor M, **Romero IC**, Schwing P (2020) How quickly will the off shore ecosystem recover from the 2010 Deepwater Horizon oil spill ? Lessons learned from the 1979 Ixtoc-1 oil well blowout. *Ecol Indic* 117:106593. doi: 10.1016/j.ecolind.2020.106593
31. Bosman SH, Schwing PT, Larson RA, Wildermann NE, Brooks GR, **Romero IC**, et al. 2020. The southern Gulf of Mexico: A baseline radiocarbon isoscape of surface sediments and isotopic excursions at depth. *PLoS ONE* 15(4): e0231678. <https://doi.org/10.1371/journal.pone.0231678>
30. Melissa Rohal, Noe Barrera, Elva Escobar-Briones, David Hollander, Paul A. Montagna, Marissa Pryor, **Isabel Romero**, Patrick Schwing: How Quickly Will the Deep-Sea Ecosystem Recover from the 2010 Deep Water Horizon Oil Spill? 2020. Lessons Learned from the 1979 Ixtoc-1 Oil Well Blowout Event. *Marine Pollution Bulletin*. <https://doi.org/10.1016/j.ecolind.2020.106593>
29. **Romero Isabel C.**, Heather Judkins, Michael Vecchione. 2020. Temporal variability of polycyclic aromatic hydrocarbons in deep-sea cephalopods of the northern Gulf of Mexico. *Front. Mar. Sci.* 7:54; doi: 10.3389/fmars.2020.00054
28. Melissa Rohal, Noe Barrera, Justine S. van Eenennaam, Edwin M. Foekema, Paul A. Montagna, Albertinka J. Murk, Marissa Pryor, and **Isabel C. Romero**. 2020. The effects of experimental oil-contaminated marine snow on meiofauna in a microcosm. *Marine Pollution Bulletin* 150: 110656, [doi.org/10.1016/j.marpolbul.2019.110656](https://doi.org/10.1016/j.marpolbul.2019.110656)
27. Sun, Xiaoxu; Chu, Lena; Mercado, Elisa; Prince, Roger; **Romero, Isabel**; Hollander, David; Kostka, Joe. 2019. Dispersant enhances hydrocarbon degradation and alters the structure of metabolically active microbial communities in shallow seawater from the northeastern Gulf of Mexico. *Frontiers Microbiology* 10:2387, doi: 10.3389/fmicb.2019.02387.

26. Eenennaam J.S., Melissa Rohal, Paul A. Montagna, Jagoš R. Radović, Thomas B.P. Oldenburg, **Isabel C. Romero**, Albertinka J. Murk, Edwin M. Foekema. 2019. Ecotoxicological benthic impacts of experimental oil-contaminated marine snow deposition. *Marine Pollution Bulletin* (141): 164-175, <https://doi.org/10.1016/j.marpolbul.2019.02.025>
25. **Romero I.C.**, Tracey Sutton, Brigid Carr, Ester Quintana-Rizzo, Steve W. Ross, David J. Hollander, Joseph J. Torres. 2018. Decadal assessment of polycyclic aromatic hydrocarbons in mesopelagic fishes from the Gulf of Mexico reveals exposure to oil-derived sources. *Environmental Science & Technology* 52 (19) 10985-10996. DOI: 10.1021/acs.est.8b02243.
24. Schwing, P.T., J.P. Chanton, **I.C. Romero**, D.J. Hollander, E.A. Goddard, G.R. Brooks, and R.A. Larson. 2018. Tracing the Incorporation of Carbon into Benthic Foraminiferal Calcite Following the Deepwater Horizon Event. *Environmental Pollution* 237: 424–29. <https://doi.org/10.1016/j.envpol.2018.02.066>.
23. Ainsworth, Cameron; Paris, Claire; Perlin, Natalie; Dornberger, Lindsey; Patterson, William; Chancellor, Emily; Murawski, Steven; Hollander, David; Daly, Kendra; **Romero, Isabel C.**; Coleman, Felicia; Perryman, Holly. 2018. Impacts of the Deepwater Horizon oil spill evaluated using an end-to-end ecosystem model. *PLoS ONE*, 13(1): e0190840. <https://doi.org/10.1371/journal.pone.0190840>
22. **Romero I.C.**, Gerardo Toro-Farmer, Arne-R Diercks, Patrick Schwing, Frank Muller-Karger, Steven Murawski, David J. Hollander. 2017. Large-scale deposition and redistribution of hydrocarbons following a deepwater oil spill. *Environmental Pollution*, 228: 179-189. <https://doi.org/10.1016/j.envpol.2017.05.019>
21. Schwing, P.T., O'Malley, B.J., **Romero, I.C.**, Martínez-Colón, M., Hastings, D.W., Glabach, M.A., Hladky, E.M., Greco, A., Hollander, D.J. 2017. Characterizing the variability of benthic foraminifera in the northeastern Gulf of Mexico following the Deepwater Horizon event (2010-2012). *Environ. Sci. Pollut. Res.*, DOI 10.1007/s11356-016-7996-z.
20. **Romero I.C.**, Tamay Özgökmen, Susan Snyder, Patrick Schwing, Bryan J. O'Malley, Francisco J. Beron-Vera, Maria J. Olascoaga, Ping Zhu, Edward Ryan, Shuyi Chen, Dana L. Wetzel, David Hollander, Steven A. Murawski. 2016. Tracking the Hercules 265 marine gas well blowout in the Gulf of Mexico. *J. Geophys. Res. Oceans*, 121, DOI: 10.1002/2015JC011037.
19. Murawski SA, J. Fleeger, W. Patterson, C. Hu, K. Daly, **I.C. Romero**, G. Toro-Farmer. 2016. How Did the *Deepwater Horizon* Spill Affect Coastal and Continental Shelf Ecosystems. *Oceanography* 29(3):161-173. <https://doi.org/10.5670/oceanog.2016.80>
18. Schwing P., **Romero I.C.**, Larson R., O'Malley B., Fridrik E. Goddard E.A., Brooks G., Hastings D., Rosenheim B., Hollander B., Grant G., Mulhollan J. 2016. Sediment core extrusion method at millimeter resolution using a calibrated, treaded-rod. *Journal of Visualized Experiments* (114), e54363, [doi:10.3791/54363](https://doi.org/10.3791/54363)
17. Moss J.A., Chelsea McCurry, Patrick Schwing, Wade H. Jeffrey, **Isabel C. Romero**, David J. Hollander, Richard A. Snyder. 2016. Molecular characterization of benthic foraminifera communities from the Northeastern Gulf of Mexico shelf and slope following the Deepwater Horizon event. *Deep-Sea Research Part I* 115: 1-9, <https://doi.org/10.1016/j.dsr.2016.04.010>

16. Moss J., Chelsea McCurry; Sarah Tominack; **Isabel C. Romero**; David Hollander; Wade H Jeffrey; Richard A Snyder. 2016. Ciliate protists from the sediment-water interface in the Northeastern Gulf of Mexico. *Deep-Sea Research Part I* 106: 85-96, <https://doi.org/10.1016/j.dsr.2015.10.001>
15. Overholta W.A., Kala P. Marksa, **Isabel C. Romero**, David J. Hollander, Terry W. Snella, Joel E. Kostka. 2016. Hydrocarbon Degrading Bacteria Exhibit a Species Specific Response to Dispersed Oil while Moderating Ecotoxicity. *Applied and Environmental Microbiology*, DOI:10.1128/AEM.02379-15.
14. Hastings, D.W., Schwing, P.T., Brooks, G.R., Larson, R.A., Morford, J.L., Roeder, T., Quinn, K.D., **Romero, I.C.**, Hollander, D. J. 2016. Changes in sediment redox conditions following the BP DWH Blowout event. *Deep Sea Research II*, DOI: 10.1016/j.dsr2.2014.12.009.
13. **Romero, I.C.**, Schwing, P.T., Brooks, G.R., Larson, R.A., Hastings, D.W., Flower, B.P., Goddard, E.A., Hollander, D.J. 2015. Hydrocarbons in deep-sea sediments following the 2010 Deepwater Horizon Blowout in the Northeast Gulf of Mexico. *PLOSone*, DOI: 10.1371/journal.pone.0128371.
12. Brooks, G.R., Larson, R.A., Flower, B.P., Hollander, D.J., Schwing, P.T., **Romero, I.C.**, Moore, C., Reichart, G.J., Jilbert, T., Hastings, D.W. 2015. Sediment Pulse in the NE Gulf of Mexico Following the 2010 DWH Blowout. *PLOSone*, DOI: 10.1371/journal.pone.0132341.
11. Scharler U.M., Ulanowicz R.E., Fogel M.L., Wooller M.J., Jacobson-Meyers M.E., Lovelock C.E., Feller I.C., Frischer M., Lee R., McKee K., **Romero I.C.**, Schmit J.P., Shearer C. 2015. Variable nutrient stoichiometry (C:N:P) across trophic levels determines community and ecosystem properties in an oligotrophic mangrove system. *Oecologia*, 10.1007/s00442-015-3379-2.
10. **Romero I.C.**, Myrna E. Jacobson-Meyers, Jed A. Fuhrman and Douglas G. Capone. 2015. Phylogenetic Diversity of Diazotrophs along an Experimental Nutrient Gradient in Mangrove Sediments. *J. Mar. Sci. Eng.* 2015, 3, 699-719; DOI:10.3390/jmse3030699.
9. Schwing, P.T., Flower, B.P., **Romero, I.C.**, Brooks, G.R., Larson, R.A., Hollander, D.J., Hastings, D.W. 2015. A decline in benthic foraminifera following the Deepwater Horizon oil blowout, Gulf of Mexico. *PLoS One*; <https://doi.org/10.1371/journal.pone.0120565>.
8. Quintana-Rizzo, E., Torres, J.J., Ross S.W., **Romero I.C.**, Watson, K., Goddard, E. and Hollander, D. 2015. Changes in  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  in deep-living fishes and shrimps after the Deepwater Horizon oil spill, Gulf of Mexico. *Marine Pollution Bulletin*, 94(1-2), 241–250. <https://doi.org/10.1016/j.marpolbul.2015.02.002>
7. **Romero I.C.**, Klein N.J., Sañudo-Wilhelmy S.A., Capone D.G. 2013. Potential trace metal co-limitation controls on  $\text{N}_2$  fixation and  $\text{NO}_3^-$  uptake in lakes with varying trophic status. *Frontiers in Aquatic Microbiology*, 10.3389/fmicb.2013.00054.
6. **Romero I.C.** and Feakins S. J. 2011. Spatial gradients in plant leaf wax D/H cross a coastal salt marsh in Southern California. *Organic Geochemistry* 42: 618-629. DOI: 10.1016/j.orggeochem.2011.04.001
5. **Romero I.C.**, M. Jacobson Meyers, J.A. Fuhrman, M. Fogel and D.G. Capone. 2011. Long-term nitrogen and phosphorus fertilization effects on  $\text{N}_2$  fixation rates and *nifH* gene community patterns in mangrove sediments. *Marine Ecology*: 1-11; <https://doi.org/10.1111/j.1439-0485.2011.00465.x>

4. Fogel M. L., M. J. Wooller, J. Cheeseman, B. J. Smallwood, Q. Roberts, **I.C. Romero** and M. Jacobsen Meyers. 2008. Unusually negative nitrogen isotopic compositions ( $\delta^{15}\text{N}$ ) of mangroves and lichens in an oligotrophic, microbially-influenced ecosystem. *Biogeosciences* 5: 1704-2008; <https://doi.org/10.5194/bg-5-1693-2008>
3. Lucero C.H., Cantera J. R. and **Romero I.C.** 2006. Variability of macrobenthic assemblages under abnormal climatic conditions in a small scale tropical estuary. *Estuarine, Coastal and Shelf Science* 68: 17-26; <https://doi.org/10.1016/j.ecss.2005.11.037>
2. **Romero I.C.**, J.R. Cantera and E. Pena. 2006. Leaf consumption by herbivores in mangroves of the Dagua river estuary, Pacific coast of Colombia. *Rev.Biol.Trop.* (ISSN-0034-7744)Vol.54(4):1205-1214.
1. **Romero I.C.**, G. Toro-Farmer y JR Cantera. 1997. Primer registro para el Pacifico colombiano de *Patelloida semirubida* (Mollusca: Gastropoda: Acmaeidae). *Boletin Ecotropica: Ecosistemas Tropicales* (ISSN: 0122-3313) No. 31.

#### **Other publications (Books, technical papers)**

8. **Romero, Isabel C.**, Jeff Chanton, Brad Roseheim, Jagoš R. Radović, Patrick Schwing, Dave Hollander, S. Larter, T.B.P. Oldenburg. 2019. Long-term preservation of oil spill events in sediments: the case for the Deepwater Horizon spill in the Northern Gulf of Mexico. In “Deep Oil Spills: Facts, Fate, Effects”, 285-300 p, [doi.org/10.1007/978-3-030-11605-7\\_17](https://doi.org/10.1007/978-3-030-11605-7_17).
7. Sutton, Tracey, Tamara Frank, Heather Judkins, **I.C. Romero**. 2019. As Gulf Oil Extraction Goes Deeper, Who Is at Risk? Community Structure, Distribution, and Connectivity of the Deep-Pelagic Fauna. In “Scenarios and Responses to Future Deep Oil Spills”, 403-418 p, [doi.org/10.1007/978-3-030-12963-7\\_24](https://doi.org/10.1007/978-3-030-12963-7_24).
6. Perlin, Natalie, Igal Berenshtein, Ana C. Vaz, Robin Faillettaz, Zachary M. Aman, Patrick Schwing, **Isabel C. Romero**, Michael Schlüter, Andreas Liese, Juan Viamonte, Nuttapol Noirungsee, Claire.B. Paris. 2019. Far-field modeling of deep-sea blowout: sensitivity studies of initial conditions, biodegradation, sedimentation and SSDI on surface slicks and oil plume concentrations. In “Deep Oil Spills: Facts, Fate, Effects”, 170-192 p, [doi.org/10.1007/978-3-030-11605-7\\_11](https://doi.org/10.1007/978-3-030-11605-7_11).
5. Radović, Jagoš R., **Isabel C. Romero**, T.B.P. Oldenburg, S. Larter, and John W. Tunnell. 2019. 40 years of weathering of coastal oil residues in the Southern Gulf of Mexico. In “Deep Oil Spills: Facts, Fate, Effects”, 328-340 p, [doi.org/10.1007/978-3-030-11605-7\\_20](https://doi.org/10.1007/978-3-030-11605-7_20).
4. Foekema, E.M., J.S. van Eenennaam, D. Hollander, A. Langenhoff, T.B.P Oldenburg, J. Radovic, M. Rohal, **I.C. Romero**, P. Schwing, A.J. Murk. 2019. Testing the effect of MOSSFA events in Benthic Multispecies Systems. In “Scenarios and Responses to Future Deep Oil Spills”, 288-299 p, [doi.org/10.1007/978-3-030-12963-7\\_17](https://doi.org/10.1007/978-3-030-12963-7_17).
3. Pulster Erin L., Adolfo Gracia, Susan M. Snyder, **Isabel C. Romero**, Brigid Carr, Gerardo Toro-Farmer, Steven A. Murawski. 2019. Polycyclic Aromatic Hydrocarbon Baselines in Gulf of Mexico

Fishes. In “Scenarios and Responses to Future Deep Oil Spills”, 253-271 p, doi.org/10.1007/978-3-030-12963-7\_15.

2. **Romero, I.C.** 2018. A high-throughput method (ASE - GC/MS/MS/MRM) for quantification of multiple hydrocarbon compounds in marine environmental samples. 2018. Marine Technology Society (MTS) Journal 52 (6): 66-70, doi.org/10.4031/MTSJ.52.6.6.

1. Milligan R.J., A.M. Bernard, K.M. Boswell, H.D. Bracken-Grissom, M.A. D’Elia, S. DeRada, C.G. Easson, D. English, R.I. Eytan, K.A. Finnegan, C. Hu, C. Lembke, J.V. Lopez, B. Penta, T. Richards, **I.C. Romero**, M. Shivji, L. Timm, J.D. Warren, M. Weber, R.J.D. Wells, T.T. Sutton. 2018. The application of novel research technologies by the Deep Pelagic Nekton Dynamics of the Gulf of Mexico (DEEPEND) Consortium. 2018. Marine Technology Society (MTS) Journal 52 (6): 81-86, doi.org/10.4031/MTSJ.52.6.10.

### **Manuscripts in review and preparation**

Tracey T. Sutton , Rosanna J. Milligan , April B. Cook, Kevin M. Boswell, Marta D’Elia, Tamara Frank, Heather Bracken-Grissom, Daniel R. Hahn, Matthew W. Johnston, Heather Judkins , Jon Moore ,Nina M. Pruzinsky ,John A. Quinlan ,**Isabel C. Romero**, Michael Vecchione , Joseph D. Warren. *In review*. Deep-sea pelagic populations plummeted in the years following the Deepwater Horizon disaster. Science.

**Romero, Isabel C.**, J.P. Chanton, G.R. Brooks, S. Bosman, R. A. Larson, A. Harris, P. Schwing, A. Diercks. Molecular markers of biogenic and oil-derived hydrocarbons in deep-sea sediments following the Deepwater Horizon spill. In prep for special issue in Frontiers Marine Science.

Arne Diercks, **Isabel C. Romero**, Patrick Schwing, Rebekka A. Larson, Austin Harris, Samantha Bosman, Jeffrey Chanton, Gregg Brooks. Resuspension, Redistribution and Deposition of DWH oil-residues to offshore Depocenters. Submitted to Frontiers Marine Science

**Romero, I.C.**, Thea Barlett, Jeff Chanton, Joel E. Kostka , Dave Hollander, John W. Tunnell. The persistence of petroleum hydrocarbons and oxygenated products in mangroves after 37 years of the IXTOC-1 spill using GC/MS/MS-MRM. *In prep.* for Environmental Science & Technology.

**Romero, I.C.**, Thea Barlett, Dave Hollander, John W. Tunnell. Identification of multiple hydrocarbon sources in Southern Gulf of Mexico sediments. *In prep.* for Organic Geochemistry.

### **Selected Presentations in Meetings (supervised students, techs, and post-docs underlined)**

**2020. Romero I.C.**, J.P. Chanton, G.R. Brooks, S. Bosman, R.A. Larson, A. Diercks. Deepwater Horizon oil-residues as tracers of subsurface transport, partitioning, and fate of toxic compounds in the Gulf of Mexico. In: Goldschmidt, Hawaii (virtual): 06/21/20-06/26/20.

**2020. Romero I.C.**, J.P. Chanton, G.R. Brooks, S. Bosman, R.A. Larson, A. Diercks. “The fate and distribution of oil residues in deep-sea sediments resulting from the sinking of marine snow in the northern Gulf of Mexico” In: Ocean Sciences, San Diego, CA: 02/16/20-02/21/20.

**2020. Romero I.C.**, A. Chaves-Fonnegra. “Assessing the Presence of Oil Residues in Marine Sponges From the Gulf of Mexico” In: 2020 GOMOSEs, Tampa, FL: 02/3/20-02/6/20.

**2020. Romero**, Diercks, Hollander, Mckenna, Chanton, Brooks, Schwing, Bosman, Larson, Murawski. “The Chemical Legacy of Oil Spills in the Gulf of Mexico: Lessons Learned From Organic Geochemical Analyses of Sediment Samples” In: 2020 GOMOSEs, Tampa, FL: 02/3/20-02/6/20.

- 2020.** Bartlett, **Romero**, Hollander, Schwing, Brooks, Larson. “History of Persistent Organic Pollutants in Offshore Cuban Sediments: Understanding Pollution Preservation in a Tropical Coastal Environment” In: 2020 GOMOSEs, Tampa, FL: 02/3/20-02/6/20.
- 2020.** Hamontree, **Romero**, Frank, Bracken-Grissom, van Eenennaam, Murk, Timm, Foekema. “Using Hopanes and Steranes for Assessment of Petroleum Contamination in Marine Invertebrates” In: 2020 GOMOSEs, Tampa, FL: 02/3/20-02/6/20.
- 2020.** Traenkle, **Romero**, Youngbluth, Cook, Sutton. “Analysis of Organic Pollutants in Gulf of Mexico Gelatinous Zooplankton” In: 2020 GOMOSEs, Tampa, FL: 02/3/20-02/6/20.
- 2020.** Larson, Brooks, Schwing, Diercks, Chanton, **Romero**, Boseman, Diaz-Ascencio, Herguera, Hollander. “Sedimentary Processes on Monthly to Decadal Time Scales: Applications for MOSSFA” In: 2020 GOMOSEs, Tampa, FL: 02/3/20-02/6/20.
- 2020.** Brooks Larson, Schwing, Diercks, **Romero**, Chanton, Boseman, Hollander. “Oil Spill Impacts to Seafloor Sediments on Monthly to Decadal Time Scales” In: 2020 GOMOSEs, Tampa, FL: 02/3/20-02/6/20.
- 2020.** Larson, Brooks, Schwing, Diaz-Ascencio, Diercks, Chanton, **Romero**, Armentoros, Herguera, Hollander. “Short-Term Sedimentary Processes Using <sup>234</sup>Thxs: Detecting events and developing new baselines” In: 2020 GOMOSEs, Tampa, FL: 02/3/20-02/6/20.
- 2020.** Diercks, Harris, Doiron, Chanton, Boseman, Brooks, Larson, **Romero**, Schwing. “Resuspension and Redistribution of Sediments in the Deep Gulf of Mexico — A Laboratory Sed-Flume Study” In: 2020 GOMOSEs, Tampa, FL: 02/3/20-02/6/20.
- 2020.** Chanton, Diercks, Macdonald, Brooks, Larson, Silva, Bosman, Portillo, **Romero**, Schwing. “Pleistocene Aged Terrestrial Sediments in the Northeast Gulf of Mexico at 1,800-3,000 Meters Water Depth” In: 2020 GOMOSEs, Tampa, FL: 02/3/20-02/6/20.
- 2020.** Schwing, Kilborn, Montagna, Paris, Failletaz, Joye, Overholt, Brooks, Larson, **Romero**, Hollander, Murawski, Sutton, Patterson. “Assembling the Benthic Record of Species and Community Change for the Gulf of Mexico Following the Deepwater Horizon Event” In: 2020 GOMOSEs, Tampa, FL: 02/3/20-02/6/20.
- 2019.** **Isabel C. Romero**, Tracey Sutton, Arne Diercks, Will Patterson, David J. Hollander, Jeff Chanton, Gregg Brooks, Rebekka Larson, Steve Murawski. “El legado químico de los derrames de petróleo en el Golfo de México: lecciones aprendidas de los análisis de muestras biológicas y de sedimentos” In: 2019 RAUGM, Puerto Vallarta, Mexico: 10/27/19-11/1/19.
- 2019.** **Romero I.C.**, Sutton, T., Carr B, Quintana-Rizzo, E., Ross, S.W., Judkins, H., Hollander D.J., and Torres, J.J. “Understanding bioaccumulation of PAHs in deep-pelagic organisms: A decadal time-series assessment in GoM mesopelagic fishes” In: 2019 GOMOSEs, New Orleans: 02/4/19-02/7/19.
- 2019.** Murawski S.A., T. Sutton, E. Pulster, E. Hughes, J. Morris, K. Boswell, M. Schwaab, I. Romero, H. Judkins. Diel Vertical Migration Facilitates Connectivity between Mesopelagic Prey and Epipelagic Predatory Fishes. In: 2019 GOMOSEs, New Orleans: 02/4/19-02/7/19.
- 2019.** Gregg R. Brooks, Rebekka A. Larson, Arne R. Diercks, Jeffrey P. Chanton, Isabel Romero, Patrick Schwing. REDIRECT: Evidence for Recent Gravity Flow Deposition Down-slope of DwH: Re-sedimentation of MOSSFA? In: 2019 GOMOSEs, New Orleans: 02/4/19-02/7/19.
- 2019.** Rebekka. A. Larson, Gregg R Brooks, Arne Diercks, Jeff Chanton, Isabel Romero, Patrick Schwing, Samantha Bosman. REDIRECT: Spatial and Temporal Sedimentation Patterns in the NEGoM: Short-lived Radioisotope Records of Sediment Focusing and Downslope Transport of MOSSFA. In: 2019 GOMOSEs, New Orleans: 02/4/19-02/7/19.
- 2019.** Joel E. Kostka, Will A. Overholt, Elisa Mercado, Xiaoxu Sun, Isabel C. Romero, David J. Hollander, Kostas Konstantinidis, Markus Huettel. Weathered crude oil from the Deepwater Horizon oil



spill was rapidly biodegraded but altered nutrient cycles in permeable nearshore sediments. In: 2019 GOMOSEs, New Orleans: 02/4/19-02/7/19.

**2019.** Paul A. Montagna, Melissa Rohal, Patrick Schwing, Isabel Romero, and Elva Escobar-Briones. Lessons Learned From Ixtoc and Deepwater Horizon: Inspired by Wes Tunnell. In: 2019 GOMOSEs, New Orleans: 02/4/19-02/7/19.

**2019.** J. Radovic, A. Jaggi, S. Lincoln, I. Romero, R. Nelson, P. Schwing, C. Reddy, D. Hollander, S. Larter, T. Oldenburg. Comprehensive Analytical Approaches to Spill Characterization: Case Studies and Examples. In: 2019 GOMOSEs, New Orleans: 02/4/19-02/7/19.

**2018.** Judkins, H., Vecchione, M., Timm, L., Richards, T., **Romero, I.C.**, Cook, A., Sutton, T., What have we learned since 2011 about cephalopods of the northern Gulf of Mexico? Deep Sea Biology conference. Monterey, CA. 09/9/18-09/14/18

**2018.** **Romero, I.C.**, Sutton, T., Quintana-Rizzo, E., Ross, S.W., Judkins, H., Torres, J.J. and Hollander, D.J. “A 9-year Assessment of Polycyclic Aromatic Hydrocarbons Bioaccumulation in the Gulf of Mexico Mesopelagic Ecosystem.” 2018 Ocean Sciences Meeting, Portland, OR.

**2018.** Judkins, H., Vecchione, M., Sosnowski, A., **Romero, I.**, Richards, T., Timm, L., Cook, A., Sutton, T. “What have we learned since 2011 about cephalopods of the northern Gulf of Mexico? In: *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* New Orleans: 02/5/18-02/8/18.

**2018.** **Isabel C. Romero**, John W. Tunnell, Jr., Aprami Jaggi, Jagoš Radović, Joel Kostka, Jeff Chanton, Thomas B.P. Oldenburg, Dave Hollander. Assessing the weathering of residual oil deposited in Mexico coastal environments 37 years after the IXTOC-1 spill using novel analytical techniques. In: *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* New Orleans: 02/5/18-02/8/18.

**2018.** Tracey Sutton, Rosanna Milligan, April Cook, Jon Moore, Kevin Boswell, and **Isabel Romero**. DEEPEND: Evidence of Dramatic and Persistent Declines in Deep-Pelagic Fish Abundances in the Gulf of Mexico after the *Deepwater Horizon* Oil Spill. In: *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* New Orleans: 02/5/18-02/8/18.

**2018.** Jong Jin Lee, Patrick T. Schwing, **Isabel C. Romero**, Gregg R. Brooks, Rebekka A. Larson, Will A. Overholt, Joel E. Kostka, David J. Hollander Elevated Rates of Biogenic Silica Deposition in the Sediment from the Northern Gulf of Mexico during the Deepwater Horizon Oil Spill. In: *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* New Orleans: 02/5/18-02/8/18.

**2018.** Joel E. Kostka, Will A. Overholt, Elisa Mercado, Xiaoxu Sun, **Isabel C. Romero**, David J. Hollander, Smruthi Karthikeyan, Luis M Rodriguez-R, Kostas Konstantinidis, Markus Huettel. The impacts of weathered oil on ecosystem function in coastal sands. In: *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* New Orleans: 02/5/18-02/8/18.

**2018.** Erin L. Pulster, **Isabel C. Romero**, Adolfo Garcia, Brigid Carr, Steven Murawski. Polycyclic aromatic hydrocarbons in sediment and gafftopsail catfish (*Bagre marinus*) collected in the Bay of Campeche. In: *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* New Orleans: 02/5/18-02/8/18.

**2018.** Jagoš R. Radović, **Isabel C. Romero**, Wes Tunnell, Aprami Jaggi, Joel Kostka, Jeff Chanton, Dave Hollander, Thomas B.P. Oldenburg. Characterization of Weathered Petroleum in the Coastal Samples from the southern Gulf of Mexico using FTICR-MS. In: *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* New Orleans: 02/5/18-02/8/18.

**2018.** Bartlett T., **I.C. Romero**, N. Zenzola, B. Carr, E. Goddard, G. Ellis, David Hollander. 36 Year Depositional History of Ixtoc-1 Oil Spill Hydrocarbons: Persistence, Sources and Potential Impacts. In: *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* New Orleans: 02/5/18-02/8/18.

**2018.** Rohal, Melissa; Elva Escobar-Briones; Paul Montagna; **Isabel C. Romero**; David Hollander. How quickly does the deep sea recover from an oil spill? Lessons from the Ixtoc 1979. In: *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* New Orleans: 02/5/18-02/8/18.

2017. Sun X., Chu L., Mercado E., **I.C. Romero**, D. Hollander, Kostka J. Impact of dispersant on hydrocarbon biodegradation in coastal seawater. Summer Gordon Conference.
2017. **Romero I.C.**, Sutton T., Quintana-Rizzo E., Ross S.W., Torres J.J., Hollander D.J. Long-term study of Polycyclic Aromatic Hydrocarbons in deep-water fish species in the northern Gulf of Mexico reveals exposure to DWH oil. In *Aquatic Sciences Meeting*. Honolulu, Hawaii, February 26- March 3.
2017. **Romero I.C.**, A. Diercks, K.L. Daly, J. Chanton, D.J. Hollander. Distribution of Deposited Petroleum Hydrocarbons after the Deepwater Horizon Oil Spill. In: *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* New Orleans: 02/6/17-02/9/17.
2017. Barnett, B.K., W.F. Patterson III, J. Chanton, D. Hollander, **I. Romero**, E. Goddard, and J. Tarnecki. Evidence in Otoliths for Food Web Impacts from the Deepwater Horizon Oil Spill. In *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* New Orleans: 02/6/17-02/9/17
2017. Overholt W., E. Mercado, X. Sun, **I.C. Romero**, D.J. Hollander, K. Konstantinidis, M. Huettel, and J.E. Kostka. Microbial processes in a submerged coastal sands impacted with weathered oil. In: *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* New Orleans: 02/6/17-02/9/17.
2017. Bosman S., J. Chanton, D. Hollander, P. Schwing, **I. Romero**, E. Goddard, A. Gracia, E. Escobar, B.E. Rosenheim. 13C and 14C isotopic distributions in sediment and suspended particulates in the southern GoM. In: *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* New Orleans: 02/6/17-02/9/17.
2017. Machain-Castillo, M. L., Gracia, A., Ruiz-Fernández, A.C., Sanchez-Cabeza, J.A, Rodríguez-Ramírez, A., Alexander-Valdés, H, Nava-Fernández, X.A, Gómez-Lizárraga, L. E, Schwing, P.T., Hollander, D.J., **Romero, I.C.** Assessing the role of benthic foraminifera as indicators of the benthic ecosystem health and evolution after the IXTOC-I Oil Spill (Southern Gulf of Mexico). In *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* New Orleans: 02/6/17-02/9/17.
2017. Bartlett T.R., **I.C. Romero**, N.H. Zenzola, B.E.Carr, E. A. Goddard, G. Ellis, D. J. Hollander Hydrocarbon Sources Impacted by Oil Spills at Depth: Chemical Signature of the Ixtoc-1 Spill. In *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* New Orleans: 02/6/17-02/9/17.
2017. Carr B., Pulster E., **Romero I.C.**, Bartlett T.R., Hollander D., Murawski S. Comparison of Using ASE and QuEChERS Methods for Extracting PAHs from Fish Liver and Muscle. In Gulf of Mexico Oil Spill & Ecosystem Science Conference. New Orleans: 02/6/17-02/9/17.
2017. Radović R. , P.T. Schwing, **I. Romero**, R.C. Silva, A. Jaggi, Larson, G.R. Brooks, S.R. Larter, T.B.P. Oldenburg. Multiproxy approach to reconstruct the response of marine environment to major oil spills using geochemical stratigraphy of deep-water samples. In *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* New Orleans: 02/6/17-02/9/17.
2016. **Romero I.C.**, Murawski S., Daly K.L., Chanton J., Hollander D.J. The chemical signature of MOSSFA on the seafloor of the Northern Gulf of Mexico. In *2<sup>nd</sup> Hamburg Symposium on Deep-Sea Oil Spills*, Hamburg, Germany September 20.
2016. **Romero I.C.**, William F. Patterson III, Tracey Sutton, Ester Quintana-Rizzo, Steve W. Ross, Andrew S. Kane, Steven Murawski, Ethan A. Goddard, Joseph J. Torres, David J. Hollander. A Time-series Assessment of Polycyclic Aromatic Hydrocarbons in Fish Communities before and after the DWH Event. In 2016 *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* Tampa, FL: 02/1/16-02/4/16
2016. Sutton T.T., A. B. Cook, T. Frank, K. Boswell, M. Vecchione, H. Judkins, **I. Romero**. The Dynamics of Vertical Movement in the Oceanic Gulf of Mexico after Deepwater Horizon: Active Linkage of Large Vertebrates and Deep-Pelagic Nekton. In 2016 *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* Tampa, FL: 02/1/16-02/4/16
2016. Bosman S., J. Chanton, D. Hollander, P. Schwing, **I. Romero**, E. Goddard, A. Gracia, E. Escobar, B.E. Rosenheim. Evidence of Sea Floor Oil Sedimentation Associated with the Ixtoc Oil Spill. . In 2016 *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* Tampa, FL: 02/1/16-02/4/16

- 2016.** Snyder S.M., Pulster E.L., **Romero I.C.**, Hollander D.J., Murawski S.A. Comparing PAH profiles across the Gulf of Mexico: Red Snapper analysis. In 2016 *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* Tampa, FL: 02/1/16-02/4/16
- 2016.** **Romero I.C.**, Gerardo A. Toro-Farmer, Arne-R Diercks, Frank Muller-Karger, Gregg R. Brooks, Rebekka A. Larson, Patrick Schwing, Steven Murawski, David J. Hollander. Deposition and redistribution of petroleum hydrocarbons following the DWH spill: Where is going and how long will it remain? In 2016 *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* Tampa, FL: 02/1/16-02/4/16
- 2016.** Patterson W, Calay S., Chanton J., Goddard E., Hollander D., Murawski S., **Romero I.**, Tarnecki J.H. Acute and Chronic impacts of the Deepwater Horizon Oil Spill on Red Snapper in the Northern Gulf of Mexico. In *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* Tampa, FL: 02/1/16-02/4/16
- 2015.** **Romero, I.**, Ozgokmen, T., Snyder, S., Wetzel, D. L., Ylitalo, C. M., Beron Vera, F., et al. Impacts of a marine gas well blowout on PAH contamination in sediments and fish. In 2015 *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* Houston, TX : 02/16/15-02/19/15.
- 2015.** Miller, Q., **Romero, I.C.**, Brooks, G.R., Larson, R.A., Schwing, P., & Hollander, D. Sedimentary record of PAHs in offshore areas of the Northern GoM after the DWH oil spill. In 2015 *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* Houston, TX : 02/16/15-02/19/15.
- 2015.** Patterson III, W. F., Hollander, D., Jagoe, C., James, M., Murawski, S., **Romero, I.**, et al. Emerging Ecological Impacts of the DWH Oil Spill: Evaluating Ecosystem Change and Resiliency. In 2015 *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* Houston, TX : 02/16/15-02/19/15.
- 2015.** Schwing, P., **Romero, I. C.**, Brooks, G. R., Hastings, D. W., Larson, R. A., Chanton, J. P., et al. Quantifying the ecological and chemical impacts of the DWH event on benthic foraminifera and rates of subsequent recovery (2010-2014). In 2015 *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* Houston, TX : 02/16/15-02/19/15.
- 2015.** Snyder S.M., Pulster E.L., Wetzel D., **Romero I.C.**, Larson R., Hollander D.J., Murawski S.A. Understanding spatial trends in biliary PAH metabolite concentration in GoM demersal fishes using sediment PAH concentration and sediment gran size. In 2015 *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* Houston, TX : 02/16/15-02/19/15
- 2014.** **Romero, I. C.**; Toro-Farmer , G. A.; Larson, R. A.; Schwing, P.; Hollander, D. J.: Hydrocarbon Deposition In Deep-Sediments Following The DWH spill: Spatial Analysis of Organic Geochemical Signatures *Ocean Science Meeting.* Honolulu, Hawaii, February 23-28 2014.
- 2014.** **Romero I.C.**, David J. Hollander, William F. Patterson III, Steve W. Ross, Andrew S. Kane, Steven Murawski, Ester Quintana-Rizzo, , Ethan A. Goddard, Joseph J. Torres. Polycyclic aromatic hydrocarbons in fish: 2 years after the DWH oil spill. *Gulf of Mexico Oil Spill & Ecosystem Science Conf.* Mobile, Alabama, January 26-29.
- 2014.** **Romero, I.C.**; Toro-Farmer G.A., Watson K., Brooks G.R., Larson R.A., Schwing P., Hastings D., Muller-Karger F., Hollander D.J. Large-scale tracking of oil-derived hydrocarbons in deep-sediments of the Gulf of Mexico after the Deepwater Horizon oil spill. *Gulf of Mexico Oil Spill & Ecosystem Science Conference.* Mobile, Alabama, January 26-29.
- 2014.** Hollander, D. J.; **Romero, I.C.**; Schwing, P.; G. Toro-Farmer, Brooks, G.; Kosta, J. Disentangling the roles of river discharge, productivity, oil burning & dispersant on the marine oil-snow deposition (mossfa) event following the DWH blowout. *Ocean Science Meeting.* Honolulu, Hawaii, February 23-28 2014.
- 2014** Snyder, S.M.; Pulster, E.; Wetzel, D.; **Romero, I.C.**; Murawski, S. Tracing exposure of burrow-forming fishes to oil contamination following the Deepwater *Horizon* blowout. *Ocean Science Meeting.* Honolulu, Hawaii, February 23-28 2014.
- 2014** Schwing, P.T.; **Romero, I.C.**; Hastings, D.W.; Brooks, G.R.; Reilly, L.M. Characterizing the

impact and response of deep sea benthic foraminifera to the Deepwater Horizon event in the northeastern Gulf of Mexico. *Ocean Science Meeting*. Honolulu, Hawaii, February 23-28 2014.

**2014.** Hastings D.W., Schwing P.T., Brooks G.R., Barlett R.A., Larson R.A., Roeder T., Quinn K.D., **Romero I.C.**, Hollander D.J. Changes in sediment redox conditions following the BP DWH Blowout event. *Gulf of Mexico Oil Spill & Ecosystem Science Conference*. Mobile, Alabama, January 26-29.

**2013.** **Romero, I.C.**; Toro-Farmer G.A., Watson K., Brooks G.R., Larson R.A., Schwing P., Hastings D., Muller-Karger F., Hollander D.J. Levels, sources and transport pathways of hydrocarbons in deep-sea sediments after the DWH blowout in the Gulf of Mexico. MOSSFA working group meeting, Tallahassee, Florida, October 22-23 2013.

**2013.** **Romero, I.C.**, Hollander D.J., Patterson W., Ross S.W., Kane A.S., Murawski S., Quintana-Rizzo E., Peebles E.B., Goddard E.A., Torres J.J. Spatio-Temporal Concentrations and Composition of PAHs in Fish: Mesopelagic and outer Shelf-Reef Fishes in the Gulf of Mexico. In *Gulf of Mexico Oil Spill & Ecosystem Science Conference*. New Orleans, LA, January 21-23

**2013.** **Romero I.C.**, David J. Hollander, Gregg R. Brooks, Patrick Schwing, Rebekka. A. Larson, Ethan A. Goddard, Nicola Zenzola. Event Stratigraphy of the Deepwater Horizon Blowout and its Record in the Deep-Sea: A Sedimentological and Geochemical Perspective. In *Gulf of Mexico Oil Spill & Ecosystem Science Conference*. New Orleans, LA, January 21-23, 2013.

**2013.** Patterson, W., Tarnecki, J., Jagoe, C., **Romero, I.**, Hollander, D., Kane, A., et al. Shifts in Reef Fish Community and Trophic Structure Following the Deepwater Horizon Oil Spill. In *Gulf of Mexico Oil Spill & Ecosystem Science Conference*. New Orleans, LA, January 21-23, 2013.

**2013.** Watson, K., **IC Romero**, S. Murawski, D. Hollander. Large-scale tracking of oil-derived hydrocarbons in the water column of the Gulf of Mexico after the Deepwater Horizon blowout. In *Gulf of Mexico Oil Spill & Ecosystem Science Conference*. New Orleans, LA, January 21-23, 2013.

**2012.** **Romero, I.C.**, Hollander D.J., Patterson W., Quintana-Rizzo E., Kane A.S., Murawski S., Ross S.W., Peebles E.B., Ellis, G., Goddard E.A., Zenzola N., Means Z., Torres J.J. Organic geochemical evidence for oil spill impacts on fish in the Gulf of Mexico: comparative and quantitative analyses of polycyclic aromatic hydrocarbons. *Ocean Sciences Meeting*, Salt Lake City, Utah.

**2012.** Larson R.A, Brooks, G.R., Flower B.P., Hollander D., Hastings D., **Romero I.**, Valente A., Hill K., Moore C. Assessing the fate and impact of BP oil on deep-sea sedimentary environments and benthic communities: NE Gulf of Mexico. *Ocean Sciences Meeting*, Salt Lake City, Utah.

**2011.** **Romero I.C.**, Klein N.J., Barada L., Vo J., Liss A.M., Cutter L., Gunderson T., Tiahlo M., Glass J.B., Sañudo-Wilhelmy S.A., Capone D.G. *ASLO Aquatic Sciences Meeting*, San Juan, Puerto Rico. Trace metal co-limitation controls on nitrogen fixation in lakes with varying trophic status.

**2010.** **Romero I.C.** and Feakins S. J. *7<sup>th</sup> Annual Southern California Geobiology Symposium*, California Institute of Technology, Pasadena. Plant leaf wax D/H fractionation in a hypersaline Coastal Marsh.

**2009.** **Romero I.C.**, S. Ziegler, M. Fogel, M. Jacobson, J.A. Fuhrman, D.G. Capone. Molecular Insights into Plant-Microbial Processes and Carbon Storage in Mangrove Ecosystems. *AGU Fall Meeting*, San Francisco, CA.

**2008.** **Romero I.C.**, Fuhrman J. A., Jacobson M., Fogel M. L., Steele J. A. and Capone D. G. Interaction between diazotrophic bacteria and mangrove roots under different nutrient conditions. *14<sup>th</sup> Ocean Sciences Meeting*, Orlando, Florida.

**2008.** **Romero I.C.**, Fuhrman J. A., Jacobson M., and Capone D. G. Ecology of nitrogen-fixing microbial populations in the rhizosphere of mangrove sediments. *12<sup>th</sup> International Symposium on Microbial Ecology (ISME12)*, Cairns, Australia.

**2003. Romero I.C.,** Thornton D., Smallwood B.J., Jensen H., Jacobson M.E. Distribution of nutrients associated with natural tree height gradient of nutrient limited trees in Belize. *17<sup>th</sup> Biennial Conference of the Estuarine Research Federation (ERF)*, Seattle, Washington.

### **Invited Talks, Other Presentations**

- 2019 Invited talk, University of South Florida – College of Marine Science, “Organic molecular tracers of processes at depth in the Gulf of Mexico” (Oct 25, 2019).
- 2019 Sea Grant Workshop “How does Science Guide Oil Spill Response? Collaborating before, during, and after the spill. FWC Fish and Wildlife Research Center, St Petersburg (April 24, 2019).
- 2019 Research summary “Remember the Horizon: How USF Research set a standard after the 2010 Gulf oil spill” Poynter Library, St Petersburg, University of South Florida (April 18, 2019).
- 2018 MOSSFA Workshop (Marine oil snow sedimentation and flocculent accumulation), Galveston, Texas (November 26-28). “Sedimentation of hydrocarbon mixtures after the DWH: Spatial extent and fate”.
- 2018 Synthesis Workshop, Deepend Consortium (May 14-15). “Time-series assessment of PAHs in deep-pelagic fauna of the Gulf of Mexico”.
- 2017 GOMRI Board Members visit for research outline of contaminants in mesopelagic fauna – DEPEND Consortium, Nova Southeastern University, Deepend Consortium (June 12, 2017).
- 2017 Annual all-hands meeting at Nova Southeastern University for Deepend Consortium (June 13-14, 2017). “*PAHs in tissues of mesopelagic fishes in the Gulf of Mexico*”
- 2017 All-hands Deepend Consortium Meeting (02/10/2017 New Orleans). “*A time-series analysis PAHs in GoM deep-pelagic fauna*”
- 2015 Sea Grant Seminar Where did the oil go? (04/14/2015) NOAA’s Gulf of Mexico Disaster Response Center, Mobile, Alabama. “*Spatial Extent of Contamination in the Gulf of Mexico after the Deepwater Horizon oil spill*”
- 2015 All-hands Deepend Consortium Meeting (02/05/2015 Tampa, Florida). “*A time-series analysis of polycyclic aromatic hydrocarbons (PAHs) in GoM deep-pelagic fauna*”
- 2013 Research outline to GOMRI Board Members visit to the University of South Florida. C-IMAGE Consortium, St Petersburg, FL
- 2009 Invited talk, Earth Science Department, University of Southern California. “*Sediment geochemistry and ecological patterns in bacteria from Belizean mangroves*”
- 2009 Invited talk, University California, Irvine. “*Plant-microbial interactions in mangrove sediments under long-term nutrient enrichment experiments: An exploratory study*”
- 2008 Biology Department, University of Southern California, Fall Graduate seminar. “*Statistical Modeling of associative and free living nitrogen-fixing bacteria in mangrove sediments*”
- 2008 Catalina Island-Wrigley Institute, University of Southern California, Summer Seminar Series. “*Fundamentals of N<sub>2</sub> Fixation in Coastal Ecosystems*”
- 2008 Biology Department, University of Southern California, Spring Graduate seminar. “*Diazotrophs Ecology in Mangrove Sediments*”
- 2007 Biology Department, University of Southern California, Spring Graduate seminar. “*Plant-Microbial Interactions in Mangrove Sediments*”
- 2005 Smithsonian Tropical Research Institute, Panama. “*Biogeochemistry of sediments associated with mangroves in Belize*”

## **Awards**

**2019.** National Academies of Sciences, Engineering, and Medicine - Gulf Research Program Fellowship, Washington D.C.

**2008-2009.** Final Year Dissertation Fellowship, College of Letters, Arts and Sciences, University of Southern California, Los Angeles.

**2008.** WiSE Travel Grant 14<sup>th</sup> Ocean Science Meeting, Orlando, FL, \$2,500: *Interaction between diazotrophic bacteria and mangrove roots under different nutrient conditions*. University Southern California, USA.

**2008.** Wrigley Institute Summer Fellowship, University of Southern California, Los Angeles.

**2008.** The Carnegie Institute for Science, Washington D.C. Travel and Research Assistantship (*Bulk isotopic analysis of mangrove trees and sediments*), supervisor Dr. Marilyn Fogel.

**2007-2008.** Oakley Fellowship, Graduate School, University of Southern California, Los Angeles.

**2007.** Rose Hill Fellowship, Wrigley Institute for Environmental Studies, University of Southern California, Los Angeles.

**2005.** Outstanding Teaching Assistant Award, Molecular Biology, Department of Biological Sciences, University of Southern California, Los Angeles.

**2004.** Smithsonian Environmental Research Center (SERC), Washington D.C. (Dr. Feller), \$12,000 to Romero: *Carbon sources in Belize mangrove sediments*. The Smithsonian Institute Fellowship Program, Environmental Research Center, Washington D.C.

**2003.** Ten-week Graduate student Fellowship, Smithsonian Tropical Research Institute, Bocas del Toro, Panama. "*Tropical Marine Ecology Graduate Course*"

**1998.** Outstanding distinction Bachelor of Science Thesis "Mangrove leaf herbivory in the Dagua river Estuary, Buenaventura Bay", Universidad del Valle, Colombia.

**1997.** Summer Bermuda Biological Station for Research, Bermuda, "*Hazardous Assessment of Marine Contaminants Course*"

**1994-1995.** Academic merit award, Department of Biology, Universidad del Valle, Colombia.

## **Honors (committees, invited meetings, etc)**

**2019.** Orientation and Professional Development Meeting, National Academies of Sciences, Engineering, and Medicine, Gulf Research Program Fellowship, Washington D.C., September 4-5, 2019.

**2019.** Invited to participate in the Synthesis workshop "Ecosystem Impacts of the Deepwater Horizon Event: Assembling the Record of Species and Community Change" Gulf of Mexico Research Initiative's Synthesis and Legacy Effort (Core Area 3). St. Petersburg, FL, July 23-25, 2019.

**2019.** Invited to participate in the Gulf of Mexico Research Initiative (GOMRI) workshop "Petrochemical Vulnerability Ranking Methodology Index for ~2,000 marine species". Cuba June 16-22, 2019.

**2019.** Invited to participate in the Synthesis workshop “Fate of Oil” Gulf of Mexico Research Initiative’s Synthesis and Legacy Effort (Core Area 2). Washington, D.C., June 12-14, 2019.

**2019.** Publication highlighted in “GOMRI eNews” on Feb 4<sup>th</sup> 2019: Decadal assessment of polycyclic aromatic hydrocarbons in mesopelagic fishes from the Gulf of Mexico reveals exposure to oil-derived sources. *ES&T*.

**2017.** Publication highlighted in “GOMRI eNews” on August 26, 2016: Characterizing the variability of benthic foraminifera in the northeastern GoM following the Deepwater Horizon event (2010–2012). *Environ. Sci. Pollut. Res.* 2017, 24 (3), 2754–2769, DOI: 10.1007/s11356-016-7996-z

**2016.** Publication highlighted in “Publication highlights – GOMRI” on August 26, 2016: Geochemical signatures of a Marine Gas Well Blowout in the Gulf of Mexico. *J. Geophys. Res. Oceans*, 121, DOI: 10.1002/2015JC011037

**2016.** My work in Mexico coastal environments highlighted in the short documentary “The Ixtoc Blowout” in the website “Beneath the Horizon” by filmmaker Jake Price (<http://jakeprice.com>). Video at: [www.beneaththehorizon.org/ixtoc.html](http://www.beneaththehorizon.org/ixtoc.html)

**2016.** Our research in C-IMAGE Consortium featured in the documentary “Dispatches from the Gulf” produced by filmmakers Marilyn and Hal Weiner. [www.youtube.com/watch?v=gcU7uIXNYig](http://www.youtube.com/watch?v=gcU7uIXNYig), and [www.youtube.com/watch?v=Z4U9ZkcGpy0](http://www.youtube.com/watch?v=Z4U9ZkcGpy0)

**2016.** Bay News 9 featured our field campaigns in Mexico (August 4, 2016). [www.youtube.com/watch?v=9vhPnZ4WHhw](http://www.youtube.com/watch?v=9vhPnZ4WHhw)

**2013.** My work on contamination of fishes highlighted in the newspaper Tampa Bay Times (April 5).

**2007-2011.** WiSE Fellowship “Childcare subsidy”, University of Southern California, Los Angeles.

### **Teaching Experience**

**2019.** The Deep-pelagic Ocean. Short talks to undergraduate students at the New College of Florida, Sarasota, FL.

**2015.** Organic Geochemistry section in Chemical Oceanography course (21 students), Graduate School, College of Marine Sciences, University of South Florida, St Petersburg, FL

**2003-2006.** Teaching Assistant, courses: “Benthic Ecology, Molecular Biology, Island Ecology and Natural History, Humans and their Environment, General Biology”, University of Southern California, Los Angeles, CA. *Duties: Teaching laboratory sessions to undergraduate students.*

**1999-2000.** Lecturer, course “General Biology”, University ICESI, Colombia. *The course was designed for giving an introduction of cell biology, genetics, ecology and human impacts to undergraduate students in Engineering and Economics. Course was taught twice a year.*

**1996-1997.** Teaching Assistant, course: “Marine Invertebrates Zoology”, Universidad del Valle, Colombia. *Field assistant coordinator and Laboratory assistant for undergraduate students in Marine Biology.*

**1996.** Laboratory Assistant, course: “General Invertebrates Zoology”, Universidad del Valle, Colombia. *Duties: Laboratory assistant for undergraduate students in Biology.*

### **Student Committees**

**2020-present.** Master student Martina Plafcan. College of Marine Science, University of South Florida.

**2020-present.** Master student Lisa Rose-Mann. College of Marine Science, University of South Florida.

**2018-present.** Master Thesis: Using organic molecules preserved in marine sediments to understand historical inputs of land-derived contaminants: A case study from Offshore Cuba. Thea Bartlett. College of Marine Science, University of South Florida.

**2018-19.** Master Thesis: Elevated Rates of Biogenic Silica Deposition in the Sediment from the Northern Gulf of Mexico during the Deepwater Horizon Oil Spill. Jong Jin Lee. College of Marine Science, University of South Florida.

**2013.** Master Thesis: Spatial and Temporal Extent of a Subsurface Hydrocarbon Intrusion Following the Deepwater Horizon Blowout. Kathleen Murray Watson. College of Marine Science, University of South Florida.

**2012.** Undergraduate Senior Thesis: Carbon elemental and stable isotopic compositions of sediment cores from the Desoto Canyon, Gulf of Mexico: Evidence for petroleum traces from the Deepwater Horizon Blowout. Nicola Zenzola. Eckerd College, St. Petersburg, Florida

### **Laboratory training and Mentorship**

- Thea Bartlett (from Eckerd College). Technician USF (2016-2018). Now a USF Master student
- Jon Jin Lee. 2017-2018 Master Student at USF. Now a PhD student at Newfoundland, Canada.
- Hannah Hamontree (Graduated from Eckerd College). Technician USF (2018-2020). Now a PhD student at Old Dominion University.
- Olivia Traenkle (Graduated Eckerd College). Intern (2018), then Technician (2019-February 2020). Now a PhD student at Oregon University.
- Leah Kunins (underg. Student Brandeis University). Intern (volunteer), summer 2018
- Brigid Carr (Graduated from Eckerd College). Technician USF (2016-2017). Now graduated Master at USF.
- Xiaoxu Sun (PhD student from Georgia Tech). Visiting student, March 2017
- Gregg Ellis, Postdoctoral fellow USF (2014-2016)
- Macie Hanneken (Eckerd College Student). Intern, summer 2014
- Emily Makowics (Eckerd College Student). Intern, summer 2014
- Kathleen Watson (Master Student USF). 2013-2014
- Quentin Miller (Graduated from Eckerd College). Technician USF (2012-2015)
- Nicola Zenzola, Eckerd College Student (2011-2012); then as a technician USF (2012-2016)

### **Professional Service**

2020 Conference session Lead: Gulf of Mexico Oil Spill & Ecosys Science Conf. Tampa, FL: 02/3/20-02/6/20. Session: The deep Gulf of Mexico: Knowns and unknowns after the Deepwater Horizon spill.



- 2019 Conference session chaired: Gulf of Mexico Oil Spill & Ecosys Science Conf. New Orleans: 02/4/19-02/7/19. Session: Environmental settings, stressors, and their influence on resilience of benthic fauna.
- 2019 Conference session chaired for 2018 Gulf of Mexico Oil Spill & Ecosystem Science Conference. New Orleans: 02/4/19-02/7/19. Session: fate and Transport of Oil in the Open Ocean: Water-Sediment Connectivity.
- 2019 Program organizer, Ecology team, for the 2019 Gulf of Mexico Oil Spill & Ecosystem Science Conference.
- 2018 Program organizer, Ecology team, for the 2018 Gulf of Mexico Oil Spill & Ecosystem Science Conference.
- 2018 Conference session chaired (leader): Gulf of Mexico Oil Spill & Ecosystem Science Conference. New Orleans: 02/6/18-02/9/18. Session: fate and Transport of Oil in the Open Ocean: Water-Sediment Connectivity.
- 2007-08 Department Graduate Student representative, Marine Environmental Biology Department, University of Southern California.
- 2007 Collaboration in setting a mentoring program for new Graduate Students in Marine Environmental Biology Department, University of Southern California.

### **Manuscripts and Grant reviewer**

- 2020 Review Editor for Frontiers in Marine Sciences and Frontiers in Earth Science (Marine Geoscience section)
- 2019 Deepsea Research I, Marine Pollution Bulletin
- 2018 Journal reviewer: Continental Shelf Research, Anthropocene, Deepsea Research I, Marine Pollution Bulletin
- 2017 Journal reviewer: Marine Pollution Bulletin
- 2017 Journal reviewer: Journal of Environmental Science & Technology Letters
- 2017 Proposal reviewer for the Environmental and Conservation Fund (ECF), Hong Kong (<http://www.ecf.gov.hk/en/home/index.html>) for the topic mangrove-bacterial interactions
- 2011 Journal reviewer: Journal of Experimental Marine Biology and Ecology
- 2010 Grant reviewer: National Science Foundation (Program: Geobiology and Low-temperature Geochemistry)

### **Outreach**

- 2020 Interview by University of South Florida “Ten years after the Deepwater Horizon spill” (April 15, 2020).
- 2019 Recording podcast “What we have learned about the Gulf in the last years of research” WUSF studios, Tampa, FL (November 19, 2019).
- 2019 USF Vembu Cup, Mangrove Bay Golf Course, St Petersburg, FL.
- 2018 Congressional Earth and Space Science Caucus Exhibition, June 20 2018, Washington D.C.
- 2017 Podcast “Isabel Romero: One Hundred Years of Solitude” highlighted by GulfCast (Dispatches from the Gulf, filmmakers Marylin and Hal Weiner).  
[https://soundcloud.com/gulfdispatches/gulfcast\\_027\\_isabelromero\\_storycollider](https://soundcloud.com/gulfdispatches/gulfcast_027_isabelromero_storycollider)
- 2016 St Petersburg Science Festival, Science in the Sun. DEPEND Consortium, College of Marine Science, October 21-22.
- 2016 Marine Science Career Interviews in Summer’s Oceanography Camp for teen-aged girls in Pinellas County. USF

- 2016 The story collider, stories about science: Oil spills and Ecosystems. Tampa, Stageworks Theater. Youtube StoryColliderRomero: <https://www.youtube.com/watch?v=EQPASbgjfO4>
- 2015 Radio interview at WUSF Public Media by Florida Matters, Carson Cooper. Interview available at [https://www.wusf.usf.edu/news/program/florida\\_matters/5\\_years\\_later\\_bp\\_oil\\_spill#](https://www.wusf.usf.edu/news/program/florida_matters/5_years_later_bp_oil_spill#)
- 2015 St Petersburg Science Festival, Science in the Sun. C-Image Consortium, College of Marine Science, October 18.
- 2015 Podcast “Return to Ixtoc” Mind Open producer David Levin talks about the RV Justo Sierra research cruise experience in the Southern Gulf of Mexico – August 2015 (<https://beta.prx.org/stories/170804>).
- 2014 Documentary “Dispatches from the Gulf” Journal to Planet Earth Series. Produced by Screenscope (<http://dispatchesfromthegulf.com/journey/>)
- 2014 St Petersburg Science Festival, Science in the Sun. Paleolab, CMS, October 20.
- 2007-08 Outreach Education (Saturdays at the Lab and lab tours), Catalina Island-Wrigley Institute, University of Southern California.
- 2007 Judge in Edison challenge, Wrigley Institute – University of Southern California