

Shawn M. Doyle, Ph.D.

Microbial Ecologist
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RESEARCH INTERESTS

Microbial disturbance ecology – linking microbial population dynamics and functional biodiversity to ecosystem resilience

Cryosphere geomicrobiology – resolving the physiology, ecology, and biogeochemistry of microbial life in frozen environments

Geomicrobiology of polluted environments – roles of microbes in environmental remediation

EDUCATION

2009 - 2015	Ph.D. in Microbiology, Louisiana State University <i>Dissertation: "Diversity and Activity of Bacteria in Basal Ice Environments"</i>
2004 - 2008	B.Sc. in Microbiology, Louisiana State University

PROFESSIONAL APPOINTMENTS

2022 - present	Microbial Ecologist The Water Institute, Baton Rouge, Louisiana
2019 - 2022	Assistant Research Scientist Department of Oceanography, Texas A&M University
2015 - 2019	Postdoctoral Research Associate Department of Oceanography, Texas A&M University Advisor: Jason Sylvan
2009 - 2015	Graduate Research Assistant Department of Biological Sciences, Louisiana State University Advisor: Brent Christner
2007 - 2008	Undergraduate Research Assistant Department of Biological Sciences, Louisiana State University Advisor: Brent Christner

PUBLICATIONS

26 total | 627 citations | h-index: 15, i10-index: 18 | source: [Google Scholar](#) 7 Feb 2023

Peer-reviewed publications

1. **Doyle, S.M.**, and B.C. Christner. (2022) Variation in bacterial composition, diversity, and activity across different subglacial basal ice types. *The Cryosphere* 16(10), 4033-4051. doi.org/10.5194/tc-16-4033-2022

2. **Doyle, S.M.**, M.J. Self, J.Hayes, K.E.F. Shamberger, A.M.S. Correa, and J.B. Sylvan. (2022) Microbial Community Dynamics Provides Evidence for Hypoxia During a Massive Coral Reef Invertebrate Mortality Event. *Applied and Environmental Microbiology* 88(9) e00347-22.
3. Aljandal, S., **S.M. Doyle**, G. Bera, T.L. Wade, A.H. Knap, and J.B. Sylvan. (2022) Mesopelagic microbial community dynamics in response to increasing oil and Corexit 9500 concentrations. *PLoS ONE* 17(2): e0263420. doi.org/10.1371/journal.pone.0263420
4. Achberger, A.M., **S.M. Doyle**, M. Mills, C.P. Holmes II, A. Quigg, and J.B. Sylvan. (2021) Bacteria-Oil Microaggregates Are an Important Mechanism for Hydrocarbon Degradation in the Marine Water Column. *mSystems* 6(5) e01105-21. doi.org/10.1128/mSystems.01105-21
5. Shore, A.N., J.A. Sims, M. Grimes, L.I. Howe-Kerr, C.G.B. Grupstra, **S.M. Doyle**, L. Stadler, J.B. Sylvan, K.E. Shamberger, S.W. Davies, L.Z. Santiago-Vázquez, A.M.S. Correa. (2021) On a Reef Far, Far Away: Anthropogenic Impacts Following Extreme Storms Affect Sponge Health and Bacterial Communities. *Frontiers in Marine Science* doi.org/10.3389/fmars.2021.608036
6. **Doyle, S.M.**, G. Lin, M. Morales-McDevitt, T.L. Wade, A. Quigg, and J.B. Sylvan. (2020) Niche Partitioning Between Coastal and Offshore Shelf Waters Results in Differential Expression of Alkane and PAH Catabolic Pathways. *mSystems* 5(4) e00668-20. doi.org/10.1128/mSystems.00668-20
7. Kamalanathan, M., **S.M. Doyle**, C. Xu, A. Achberger, T. Wade, K. Schwehr, P. Santschi, J. Sylvan, and A. Quigg. (2020) Exoenzymes as a signature of microbial response to marine environmental conditions. *mSystems* 5(2) e00290-20. doi.org/10.1128/mSystems.00290-20
8. Shiu, R-F., M-H. Chiu, C.I. Vazquez, Y-Y. Tsai, A. Le, A. Wa-kagiri, C. Xu, M. Kamalanathan, H. Bacosa, **S.M. Doyle**, J.B. Sylvan, P.H. Santschi, A. Quigg, and W-C. Chin. (2020) Protein to carbohydrate (P/C) ratio changes in microbial extracellular polymeric substances induced by oil and Corexit. *Marine Chemistry* 233:103789.
9. Bera, G*, **S.M. Doyle***, U. Passow, M. Kamalanathan, T.L. Wade, J.B. Sylvan, J.L. Sericano, G. Gold, A. Quigg, and A.H. Knap. (2020) Biological Response to Dissolved versus Dispersed Oil. *Marine Pollution Bulletin* 150:110713. ***co-first authorship**
10. Kealoha, A.K., **S.M. Doyle**, R.D. Hetland, S.F. DiMarco, J.B. Sylvan, and K.E. Shamberger. (2020) Localized hypoxia may have caused coral reef mortality at the Flower Garden Banks. *Coral Reefs* 39: 119-132.
11. Kamalanathan, M., M. Chiu, H. Bacosa, K. Schwehr, S. Tsai, **S.M. Doyle**, A. Yard, S. Mapes, C. Vasequez, L. Bretherton, J.B. Sylvan, P. Santschi, W. Chin, and A. Quigg. (2019) Role of polysaccharide synthesis in diatom (*Thalassiosira pseudonana*) and the associated bacteria in response to hydrocarbon exposure. *Plant Physiology* 108:1898-1911. doi.org/10.1104/pp.19.00301
12. Xu, C., S. Zhang, M. Beaver, P. Lin, L. Sun, **S.M. Doyle**, J.B. Sylvan, A. Wozniak, P.G. Hatcher, K. Kaiser, G. Yan, K.A. Schwehr, Y. Lin, T.L. Wade, WC. Chin, MH. Chiu, A. Quigg, and P.H. Santschi. (2018) The Role of Microbially-Mediated Expolymeric Substances (EPS) in Regulating Macondo Oil Transport in a Mesocosm Experiment. *Marine Chemistry* 206:52-61. doi:10.1016/j.marchem.2018.09.005
13. ur Rehman-Kayani, M.*, **S.M. Doyle***, N. Sangwan, G. Wang, J.A. Gilbert, B.C. Christner, and T.F. Zhu. (2018) Metagenomic Analysis of Basal Ice from an Alaskan Glacier. *Microbiome* 6:123. doi:10.1186/s40168-018-0505-5. ***co-first authorship**

14. Kamalanathan, M., C. Xu, K. Schwehr, L. Bretherton, M. Beaver, **S.M. Doyle**, J. Genzer, J. Hillhouse, J.B. Sylvan, P. Santschi, and A. Quigg. (2018) Extracellular Enzyme Activity Profile in a Chemically Enhanced Water Accommodated Fraction of Surrogate Oil: Toward Understanding Microbial Activities After the Deepwater Horizon Oil Spill. *Frontiers in Microbiology* 9:798. doi:10.3389/fmicb.2018.00798
15. **Doyle, S.M.**, E.A. Whitaker, V. De Pascuale, T.L. Wade, A.H. Knap, P.H. Santschi, A. Quigg, and J.B. Sylvan. (2018) Rapid Formation of Microbe-Oil Aggregates and Changes in Community Composition in Coastal Surface Water Following Exposure to Oil and the Dispersant Corexit. *Frontiers in Microbiology* 9:689. doi:10.3389/fmicb.2018.00689
16. Quigg, A., U. Passow, W.C. Chin, C. Xu, **S.M. Doyle**, L. Bretherton, M. Kamalanathan, A.K. Williams, J.B. Sylvan, Z.V. Finkel, A.H. Knap, K.A. Schwehr, S. Zhang, L. Sun, T.L. Wade, W. Obeid, P.G. Hatcher, and P.H. Santschi. (2016) The Role of Microbial Expolymers in Determining the Fate of Oil and Dispersants in the Ocean. *L&O Letters* 1:3-26. doi:10.1002/lol2.10030
17. Montross, S. M. Skidmore, B. Christner, D. Samyn, J.L. Tison, R. Lorrain, **S.M. Doyle**, and S. Fitzsimons. (2014) Debris-Rich Basal Ice as a Microbial Habitat, Taylor Glacier, Antarctica. *Geomicrobiology* 31:76-81. doi:10.1080/01490451.2013.811316
18. **Doyle, S.M.**, S.N. Montross, M.L. Skidmore, and B.C. Christner. (2013) Characterizing Microbial Diversity and the Potential for Metabolic Function at -15°C in the Basal Ice of Taylor Glacier, Antarctica. *Biology* 2:1034-1053. doi:10.3390/biology2031034
19. Lee, J.H., H.Y. Koh, S.G. Lee, **S.M. Doyle**, B.C. Christner, and H.J. Kim. (2012) Draft Genome Sequence of *Paenisporosarcina* sp. Strain TG-20, a Psychrophilic Bacterium Isolated from the Basal Ice of Taylor Glacier. *Journal of Bacteriology* 194:6636. doi:10.1128/JB.01472-12
20. Lee, J.H., H.Y. Koh, S.G. Lee, **S.M. Doyle**, B.C. Christner, and H.J. Kim. (2012) Draft Genome Sequence of *Paenisporosarcina* sp. Strain TG-14, a Psychrophilic Bacterium Isolated from Sediment-Laden Stratified Basal Ice from Taylor Glacier, McMurdo Dry Valleys, Antarctica. *Journal of Bacteriology* 194:6656-6657. doi:10.1128/JB.01795-12
21. Amato, P., **S.M. Doyle**, J.R. Battista, and B.C. Christner. (2010) Implications of Subzero Metabolic Activity on Long-Term Microbial Survival in Terrestrial and Extraterrestrial Permafrost. *Astrobiology* 10:789-798. doi:10.1089/ast.2010.0477
22. Amato, P., **S.M. Doyle**, and B.C. Christner. (2009) Macromolecular Synthesis by Yeasts Under Frozen Conditions. *Environmental Microbiology* 11:589-596. doi:10.1111/j.1462-2920.2008.01829.x

Book Chapters, Conference Proceedings, and Other Publications

23. **Doyle, S.M.**, M. Diesler, E. Broemsen, and B. Christner. (2012) General Characteristics of Cold-Adapted Microorganisms. In L. Whyte and R.V. Miller (eds), *Polar Microbiology: Life in a Deep Freeze*. American Society of Microbiology Press, Washington D.C., pp. 103-125.
24. Montross, S.N., **S.M. Doyle**, D. Samyn, J.L. Tison, B.C. Christner, and M.L. Skidmore. (2009) Sediment-Rich Antarctica Basal Ice as a Habitat for Microorganisms. *Geochimica et Cosmochimica Acta Supplement* 73:A897
25. Amato, P., **S.M. Doyle**, and B. Christner. (2009) Microbial Survival Mechanisms in the Cold Subsurface. *Geochimica et Cosmochimica Acta Supplement* 73:A35

26. **Doyle, S.M.**, P. Amato, and B. Christner. (2008) Life In and Under the Antarctic Ice Sheets. (cover article) *Microscopy Today* 16.3:6-9. doi:10.1017/S1551929500059186

RESEARCH GRANTS AND FELLOWSHIPS

- 2021 **S.M. Doyle (PI)** and Yina Liu. Microbiome dysbiosis in marine estuaries: determining the effects of disturbances on coastal ecosystem stability. Texas A&M Geosciences Dean's Interdisciplinary Research Initiative, \$6,000
- 2018 J. Sylvan (PI) and **S.M. Doyle**. Tracking Microbial Community Gene Expression and Metabolites in the Water Column and Marine Oil Snow Following Exposure to Oil. Gulf of Mexico Research Initiative, \$112,571.
>>>Wrote proposal; RFP rules limited PI status to faculty
- 2018 A. Knap, **S.M. Doyle (Co-PI)**, J. Sylvan, G. Bera, and T. Wade. Effect of Chemically Dispersed Oil and its Effects on the Microbial Community. American Petroleum Institute, Oil Spill Emergency Preparedness and Response Subcommittee, \$86,561.
- 2014 Dr. Mary Lou Applewhite Graduate Fellowship
Louisiana State University, \$11,250.
- 2009-2011 Louisiana Board of Regents Graduate Fellowship
Louisiana State University, \$64,600.

TEACHING EXPERIENCE

Instructor

Class: **GEOS 405, Environmental Geoscience**; Fall 2020, Fall 2021, Fall 2023 (22 students)

In this undergraduate research-based, writing intensive course, students are given agency to conduct real scientific research on an environmental issue of their choosing. Students form teams of 4-5 students and propose, budget, and conduct a genuine research project over the course of the semester. I review proposals and award funds which the students then use to purchase supplies, collect samples, conduct lab work, analyze their results, and report their findings.

Class: **OCNG 461/661, Advanced Oceanography Analysis and Communication**; Spring 2022 (11 students)

In this combined undergraduate/graduate course, students conduct an analysis of a real-world oceanographic dataset over the course of the semester and learn to produce a full-length technical report and oral presentation with an emphasis on effective data analysis and data visualization strategies.

Workshop: **Oceanographic Analysis with R**; Summer 2019 (20 students)

In this workshop, students were introduced to R with an emphasis on the calculation of seawater properties, graphical representation of coastline and oceanographic data, and the analysis of CTD and 'argo' float measurements.

Workshop: **R for Data Science**; Summer 2018 (20 students)

Departmental workshop to introduce students to R with an emphasis on understanding data types, data manipulation, visualization, and statistical analysis.

Workshop: **Microbiome Analysis**; Fall 2017 (12 students)

Computational workshop on curating and analyzing 16S/18S rRNA amplicon datasets as well as short introductions to working with Linux in high-performance computing clusters.

Co-Instructor

Class: **GEOS 101, Geoscience Through Rock (Music!)**; Fall 2016 (15 students)

Freshman seminar course that uses references to geoscience topics in song lyrics to serve as the starting point for discussions and discovery-based activities to enhance student's understanding of how we investigate fundamental aspects of the geosciences.

Guest Lecturer

Class: **OCNG 650, Aquatic Microbial Ecology**; Spring 2016 and 2018 (5 students)

Graduate level course focused on current methods and research directions in the microbial ecology of marine, fresh, and groundwater systems. Emphasis on microbial physiology and biogeochemical cycling.

Teaching Assistant

Class: **BIOL 1209R, Biology of Science Majors I (Research)**; Fall 2014 (30 students)

Pilot course-based undergraduate research experience (CURE) course designed to expose first semester freshman to genuine scientific research. Students spent the semester preparing novel gene-knockout yeast mutants for use as research models in the study of ribosomal diseases

Class: **BIOL 2051, General Microbiology Lab**; Fall 2013 (30 students)

Undergraduate course focused on lab techniques including microscopy, aseptic technique, bacterial isolation and characterization, PCR, and molecular cloning.

Class: **BIOL 1209, Biology for Science Majors II (Ecology)**; Spring 2008 (30 students)

Introductory biology laboratory course for undergraduates focused on ecology and evolution.

AWARDS

Best Oral Presentation

1st Annual Texas A&M University Postdoctoral Research Symposium, 2016

Best Oral Presentation

14th Annual LSU Biograds Symposium, 2012

Outstanding Student Poster Award

ASM General Meeting: New Orleans, Louisiana, May 2011

National Science Foundation (NSF) Early Career Research Travel Award

The Scientific Committee on Antarctic Research (SCAR) Open Science Conference: Buenos Aires, Argentina, August 2011

American Geophysical Union (AGU) Travel Award

Chapman Conference on the Exploration and Study of Antarctic Subglacial Aquatic Environments: Baltimore, Maryland, March 2010

Marion D. Socolofsky Award for Microbiology

Louisiana State University, 2008

STUDENT MENTORING

Graduate Student Mentees

Alyssa Alsante	Ph.D. student; Texas A&M University
Shahd Aljandal	Ph.D. student; Texas A&M University
Shu Ying Wee	Ph.D. student; Texas A&M University
Samantha Setta	M.S. student; Texas A&M University at Galveston
Scout Whitaker	M.S. student; Texas A&M University
Genmei Lin	Ph.D. student; Texas A&M University / Ocean University of China

Undergraduate Student Mentees

Jean Gonzalez	Computer Science; Vassar College
Joelle Roman	Molecular Biology; Texas A&M University
Macy Fidler	Biology; Texas A&M University
Miabel Self	Environmental Studies; Texas A&M University
Joe Hayes	Geology; University of Wisconsin-Madison
Veronica De Pascuale	Biology; Oberlin College
Isabel Alessio	Geography; Texas A&M University
Cooper Young	Environmental Geosciences; Texas A&M University
Cole Hastings	Ocean and Coastal Resources; Texas A&M University

OUTREACH

Science Presenter, May 2014

Invited to present science demonstrations to K-5 students at Trinity Episcopal Day School's Annual SMART (Science and Math are Real Things) Convention Day.

Mentor for EnvironMentors, 2012-2013

A national college access initiative that prepares at-risk high school juniors and seniors for college degree programs in environmental and related science fields

NASA Astrobiology: Exobiology and Evolutionary Biology Proposal Review Panel

August 2012, Washington, D.C.

Antarctic Science Outreach Project, 2009-2010

Developed an outreach program at Sulphur High School (SHS) and Frasch Elementary School (FES) to directly expose students to research and educate them on scientific career opportunities. The program included an Antarctic field science blog (glacialmicrobes.blogspot.com), videos of scientific field research in Antarctica, and hands-on demonstrations of Antarctic ice samples with students at SHS and FES.

Science Presenter, January 2010

Invited to present science demonstrations for Louisiana high school students at the Louisiana Junior Science and Humanities Symposia.

PolarTREC Program, Winter 2009

Participant in PolarTREC during the Antarctic summer field season, which is an educational research experience, funded by the NSF and managed by the Arctic Research Consortium, in which K-12 teachers participate in a polar research experience. (<https://www.polar trec.com/expeditions/microorganisms-in-antarctic-glacier-ice>).

ACADEMIC SERVICE

Manuscript Referee

Applied Microbiology and Biotechnology
 Astrobiology
 Bulletin of Environmental Contamination and Toxicology
 Brazilian Journal of Microbiology
 Environmental Science and Pollution
 FEMS Microbiology Ecology
 Frontiers in Marine Science
 Frontiers in Microbiology
 Journal of Marine Systems
 Journal of Sea Research
 Microbial Ecology
 Phycology
 PLOS One
 Polar Biology
 Polar Record
 Polish Polar Research
 Science of the Total Environment
 Scientific Report Reviews

Proposal Referee

National Science Foundation (Arctic Natural Sciences)
 NASA (Astrobiology)

Professional Society Membership

American Society for Microbiology
 Association for the Sciences of Limnology and Oceanography
 American Geophysical Union

FIELD EXPERIENCE

Sept 2021	R/V <i>Trident</i> (1 day), Tracking Persistent Environmental Contaminants in Galveston Bay
Aug 2018	R/V <i>Pelican</i> (6 days), Flower Garden Banks National Marine Sanctuary Hurricane Harvey Rapid Response Cruise
Oct 2017	R/V <i>Point Sur</i> (5 days), Flower Garden Banks National Marine Sanctuary Hurricane Harvey Rapid Response Cruise
Sept 2017	R/V <i>Point Sur</i> (8 days), Hurricane Harvey Rapid Respond Cruise, Coastal Texas, Gulf of Mexico
July 2016	R/V <i>Trident</i> (1 day), ADDOMEx Consortium Coastal Cruise
Nov-Dec 2009	Basal ice sampling from Taylor Glacier, McMurdo Dry Valleys, Antarctica
Oct-Dec 2007	Basal ice sampling from Taylor Glacier, McMurdo Dry Valleys, Antarctica

PRESENTATIONS

(21 talks, 21 posters)

Doyle, S.M., and B.C. Christner. A meta-analysis of microbial communities in basal ice and other sympagic environments. (2021) Oral presentation at AGU. December 13, 2021. New Orleans, Louisiana

Doyle, S.M., G. Lin, M. Morales-McDevitt, T.L. Wade, A. Quigg, and J.B. Sylvan. Niche Partitioning Between Coastal and Offshore Shelf Waters Results in Differential Expression of Alkane and PAH Catabolic Pathways. (2020) Poster presentation at the AGU/ASLO Ocean Sciences Meeting. February 16-21, 2020. San Diego, California.

Liu, Y., **S.M. Doyle,** M. Shields, T. Fulton, J.L. Sericano, J.B. Sylvan, A. Quigg, A.H. Knap, and T.L. Wade. (2020) Tracing Microbial Transformation of Diluted Chemically Enhanced Water Accommodated Fraction of Crude Oil through Targeted Metabolomics. Poster presentation at the annual Gulf of Mexico Oil Spill & Ecosystem Science Conference. February 3-6, 2020. Tampa, Florida.

Doyle, S.M., G. Lin, M. Morales-McDevitt, T.L. Wade, A. Quigg, and J.B. Sylvan. (2020) Niche Partitioning Between Coastal and Offshore Shelf Waters Results in Differential Expression of Alkane and PAH Catabolic Pathways. Oral presentation at the annual Gulf of Mexico Oil Spill & Ecosystem Science Conference. February 3-6, 2020. Tampa, Florida.

Achberger, A., **S.M. Doyle,** C. Holmes, G. Lin, A. Quigg, and J.B. Sylvan. (2020) Role of Micron-Scale Aggregates in Hydrocarbon Oxidation. Oral presentation at the annual Gulf of Mexico Oil Spill & Ecosystem Science Conference. February 3-6, 2020. Tampa, Florida.

Doyle, S.M., A. Achberger, G. Lin, T. Wade, and J.B. Sylvan. (2019) Differences in the Compositional and Transcriptional Responses of Surface Water Marine Microbial Communities to Oil and Chemically Dispersed Oil. Oral presentation at the annual Gulf of Mexico Oil Spill & Ecosystem Science Conference. February 4-7, 2019. New Orleans, Louisiana.

Achberger, A., **S.M. Doyle,** C. Holmes, G. Lin, A. Quigg, J.B. Sylvan, and the ADDOMEx Consortium. (2019) Role of Micron-Scale Aggregates in Hydrocarbon Oxidation. Poster presentation at the annual Gulf of Mexico Oil Spill & Ecosystem Science Conference. February 4-7, 2019. New Orleans, Louisiana.

Sylvan, J.B., **S.M. Doyle,** A.K. Kealoha, K. Shamberger, R.D. Hetland, and S. DiMarco. (2019) Water Column Prokaryotic Communities at the Flower Garden Banks National Marine Sanctuary after the 2016 Mass Mortality Event and Hurricane Harvey. Poster presentation at the annual Gulf of Mexico Oil Spill & Ecosystem Science Conference. February 4-7, 2019. New Orleans, Louisiana.

Doyle, S.M., S. Aljandal, G. Bera, Y. Liu, T. Wade, A. Knap, and J.B. Sylvan. (2019) Differences in the Compositional and Functional Responses of Marine Microbial Communities to Oil, Dispersant, and Chemically Dispersed Oil. Poster presentation at the annual Gulf of Mexico Oil Spill & Ecosystem Science Conference. February 4-7, 2019. New Orleans, Louisiana.

Hayes, J., **S.M. Doyle,** and J.B. Sylvan. (2018) Did a freshwater lens influence the microbial community after Hurricane Harvey at the Flower Garden Banks National Marine Sanctuary? Poster presentation at the Texas A&M Department of Oceanography 2018 REU Student Symposium. August 3, 2018. College Station, Texas.

Doyle, S.M., G. Lin, S. Setta, A. Achberger, T. Wade, A. Quigg, and J.B. Sylvan. (2018) Comparing Microbial Community Responses to Oil and Corexit Between Coastal and Offshore Waters of the Gulf of Mexico. Oral presentation at the 2018 ASLO Summer Meeting. June 10-15, 2018. Victoria, BC, Canada

Doyle, S.M. and J.B. Sylvan. (2018) Microbial Community Dynamics in the Flower Garden Banks National Marine Sanctuary after the 2016 Localized Mortality Event. Oral presentation at NOAA Flower Garden Banks Mortality Event Mini-Symposium. February 27-28, 2018. Galveston, Texas.

Correa, A., J. Drummond, C. Grupstra, and **S.M. Doyle**. (2018) Coral microbiome response to the 2016 EFGB Localized Mortality Event. Oral presentation at NOAA Flower Garden Banks Mortality Event Mini-Symposium. February 27-28, 2018. Galveston, Texas.

Kealoha, A., K. Shamberger, S. Dimarco, **S.M. Doyle**, R. Hetland, and J.B. Sylvan. (2018) Seawater Chemical Anomalies Following the 2016 EFGB Localized Mortality Event. Oral presentation at NOAA Flower Garden Banks Mortality Event Mini-Symposium. February 27-28, 2018. Galveston, Texas.

Doyle, S.M., A. Achberger, G. Lin, S. Setta, T. Wade, A. Quigg, and J.B. Sylvan. (2018) Comparing Microbial Community Responses to Oil and Corexit Between Coastal and Offshore Waters of the Gulf of Mexico. Oral presentation at the annual Gulf of Mexico Oil Spill & Ecosystem Science Conference. February 5-8, 2018. New Orleans, Louisiana.

A. Achberger, **S.M. Doyle**, C. Holmes, G. Lin, A. Quigg, and J.B. Sylvan. (2018) Role of micron-scale aggregates in hydrocarbon oxidation. Oral presentation at the annual Gulf of Mexico Oil Spill & Ecosystem Science Conference. February 5-8, 2018. New Orleans, Louisiana.

G. Lin, S. Setta, A. Achberger, **S.M. Doyle**, A. Quigg, and J.B. Sylvan. 2018. Analysis of 18S rRNA Defined Eukaryotic Community Composition in Coastal and Offshore Gulf of Mexico upon Exposure to Oil and Dispersants. (2018) Poster presentation at the annual Gulf of Mexico Oil Spill & Ecosystem Science Conference. February 5-8, 2018. New Orleans, Louisiana.

S. Setta, G. Lin, A. Achberger, **S.M. Doyle**, Z. Finkel, A. Irwin, J.B. Sylvan, A. Quigg. (2018) The Interaction between Phytoplankton and Bacteria Responding to Oil and/or Dispersants. Oral presentation at the annual Gulf of Mexico Oil Spill & Ecosystem Science Conference. New Orleans, LA. February 7, 2018.

S. Setta, G. Lin, A. Achberger, **S.M. Doyle**, Z. Finkel, A. Irwin, J.B. Sylvan, A. Quigg. (2017) The effects of exposure to oil and/or dispersants on the interaction between phytoplankton and bacteria. Poster presentation at the Coastal and Estuarine Research Federation (CERF) Annual Meeting. Providence, RI. November 8, 2017.

S. Setta, E. Whittaker, J. Genzer, L. Bretherton, **S.M. Doyle**, C. Brown, J.B. Sylvan, A. Irwin, Z. Finkel, A. Quigg. (2017) The interaction between bacteria and phytoplankton in response to oil and Corexit in mesocosm experiments. Poster presentation at the Association for the Sciences of Limnology and Oceanography (ASLO) Annual Meeting. Honolulu, HI. March 1, 2017.

Doyle, S.M., S. Setta, E. Whitaker, V. De Pascuale, A. Quigg, and J.B. Sylvan. (2017) Investigating the Microbial Response to Oil and Dispersants in Surface Water Marine Environments. Poster presentation at the annual Gulf of Mexico Oil Spill & Ecosystem Science Conference. New Orleans, LA. February 8, 2017.

S. Setta, E. Whittaker, J. Genzer, L. Bretherton, C. Brown, **S.M. Doyle**, J.B. Sylvan, A. Irwin, Z. Finkel, A. Quigg. (2017) The effect of Oil and Corexit on the interaction between bacteria and phytoplankton in mesocosm experiments. Poster presentation at the annual Gulf of Mexico Oil Spill & Ecosystem Science Conference. New Orleans, LA. February 8, 2017.

S. Setta, L. Bretherton, Z. Finkel, A. Irwin, C. Brown, **S.M. Doyle**, J.B. Sylvan, A. Quigg. (2017) The effects of oil and dispersant on microbial interactions in mesocosm experiments. Poster presentation at the Marine Biology Interdisciplinary Program Meeting at Texas A&M University. Galveston, TX. January 13, 2017.

Doyle, S.M., Whitaker, E., Steichen, J., Brown, C., Genzer, J., Knapp, A., Santschi, P., Quigg, A., Wade, T., Windham, R., Xu, C., Zhang, S., and Sylvan, J. (2016) Initial Analysis of Microbial Community Response to Oil and Corexit in Coastal Water Mesocosms. Poster presentation at the annual Gulf of Mexico Oil Spill & Ecosystem Science Conference. February 1-4, 2016. Tampa, Florida.

Doyle, S.M., Montross, S., Skidmore, M., and Christner, B. (2013) Antarctic Basal Ice as an Analog for Icy Extraterrestrial Habitats. Oral presentation at the 5th International Conference on Polar and Alpine Microbiology. September 8-13, 2013. Big Sky, Montana.

Doyle, S.M. (2012) Trapped Under Ice: Microbial Metabolism at Sub-zero Temperatures. Oral presentation at the LSU 14th Annual BioGrads BioSymposium, November 2, 2012.

Christner, B.C., S.M. Montross, M.L. Skidmore, P. Amato, **S.M. Doyle**, and A.M. Achberger. (2011) Microbial processes relevant to survival in ice of the englacial and basal zones of polar glaciers. Invited oral presentation at the 4th International Conference on Polar and Alpine Microbiology. 4-8 September 4-8, 2011. Ljubljana, Slovenia.

Doyle, S.M., Montross, S., Skidmore, M., and Christner, B. (2011) Evidence for a Metabolically Active Microbial Assemblage in a Subglacial Habitat. Poster presentation at the 111th General Meeting ASM. May 21-24, 2011. New Orleans, Louisiana.

Christner, B.C., **S.M. Doyle**, S.N. Montross, M.L. Skidmore, D. Samyn, R. Lorrain, J. Tison, S. Fitzsimons. (2010) A subzero microbial habitat in the basal ice of an Antarctic glacier. Invited oral presentation at the American Geophysical Union Fall Meeting. December 13-17, 2010. San Francisco, California,

Christner, B.C., P. Amato. J.R. Battista, and **S.M. Doyle**. (2010) Implications of subzero metabolism on long-term microbial survival in ice. Poster presentation at the American Geophysical Union Fall Meeting. December 13-17, 2010. San Francisco, California,

Montross, S.N., M.L. Skidmore, B.C. Christner, **S.M. Doyle**, J. Tison, D. Samyn, and T.A. Sowers. (2010) Determining the importance of microbial processes on gas composition in debris-rich Antarctic basal ice using isotope geochemistry. Poster presentation at the American Geophysical Union Fall Meeting. December 13-17, 2010. San Francisco, California,

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